دعوة للتقدم للمناقصة العامة الدولية رقم ٢٠١٣/٤

يعلن صندوق تطوير التعليم التابع لرئاسة مجلس الوزراء الكائن ١٣ شارع هارون بالدقي جيزة، مصر عن طرح المناقصة العامة الدولية رقم ٢٠١٣/٤ لتوريد عدد ١٢ حزمة معامل متنوعة لمجمع التعليم التكنولوجي المتكامل بالفيوم **والتأمين الإبتدائي بالجنيه المصري لكل حزمة كما يلى:**

م	الإسم	قيمة التأمين	
		(بالأرقام)	(بالحروف)
١	معمل اللغات	١٠,٠٠٠	عشرة آلاف جنيه
٢	معمل CAD CAE	٥,٠٠٠	خمسة آلاف جنيه
٣	معمل الكيمياء	٢٥,٠٠٠	خمس وعشرون ألف جنيه
٤	معمل التركيبات الكهربية السكنية	٢٠,٠٠٠	عشرون ألف جنيه
٥	مواد التركيبات الكهربية	٢٥,٠٠٠	خمس وعشرون ألف جنيه
٦	معدات وأجهزة كهربية	١٠,٠٠٠	عشرة آلاف جنيه
٧	مواتير تشغيل إلكترونية	٣٠,٠٠٠	ثلاثون ألف جنيه
٨	معمل التركيبات الكهربية الصناعية	١٠,٠٠٠	عشرة آلاف جنيه
٩	حزمة أنظمة أتمتة المبانى السكنية	٢٠,٠٠٠	عشرون ألف جنيه
١٠	حزمة معدات Photovoltaic	٥,٠٠٠	خمسة آلاف جنيه
١١	مكونات إلكترونية	٥,٠٠٠	خمسة آلاف جنيه
١٢	موارد تعليمية	١٠,٠٠٠	عشرة آلاف جنيه

- ويمكن الحصول على كراسة الشروط والمواصفات بالعنوان المذكور أعلاه مقابل سداد مبلغ ٢٠٠٠ جنيه (ألفين جنيه مصري) كشرط وجوبي للتقدم للمناقصة الدولية.
- **وقد تحدد جلسة يوم الأحد الموافق٢٠١٣/٣/١٧ كآخر موعد لتلقي الاستفسارات**
- جلسة فتح المظاريف الفنية يوم **الاربعاء الموافق٢٠١٣/٣/٢٧** الساعة ١٢ ظهراً
- آخر موعد لتقديم العطاءات هو الموعد المحدد لفتح المظروف الفني.
- القانون ٨٩ لسنة ٩٨ بشان المناقصات والمزايدات ولائحته التنفيذية وكراسة الشروط والمواصفات متممة لهذا الإعلان.
- الإعلان وكراسة الشروط والمواصفات على الموقع الالكتروني: **www.edf.edu.eg**

Invitation to Participate in the International Open Tender # 4/2013

The Education Development Fund (EDF), Cabinet of Ministers, at 13 Haroun St. Dokki – Giza, Egypt invites all **Tenderers** to submit their proposal for the supply, installation of 12 lots of laboratory equipment, services and digital learning resources for the Integrated Technical Education Cluster (ITEC) at Fayoum. Tenderers must provide a tender guarantee per lot in Egyptian Pounds as per the following table:

List of the lots	***Value of the tender guarantee EGP for each Lot***	
	In Figures	***In Letters***
Lot 1: Language lab	**10,000**	Ten Thousands
Lot 2: CAD CAE lab	**5,000**	Five Thousands
Lot 3: Chemistry lab	**25,000**	Twenty-Five Thousands
Lot 4: Electrical residential installations	**20,000**	Twenty Thousands
Lot 5: Electrical installation materials	**25,000**	Twenty-Five Thousands
Lot 6: Electrical equipment	**10,000**	Ten Thousands
Lot 7: Electrical motor drivers	**30,000**	Thirty Thousands
Lot 8: Electrical industrial installations	**10,000**	Ten Thousands
Lot 9: Home-building automation kit	**20,000**	Twenty Thousands
Lot 10: Photovoltaic kit	**5,000**	Five Thousands
Lot 11: Discrete electronic components	**5,000**	Five Thousands
Lot 12: Learning resources	**10,000**	Ten Thousands

- Bidding documents are available from EDF's at the above address against the payment of EGP 2000 (Only Two Thousand EGP) as a pre-requisite to enter the Tender.
- The deadline for receiving queries from tenderers is Sunday 17/3/2013
- Bids will be opened on Wednesday 27/3/2013 at 12:00 noon and all bids have to be submitted in sealed envelopes to the above EDF office not later than this date and time.
- Egyptian Law 89 for year 98 on bids and tenders and its executive regulations, terms and conditions, together with the document of this tender complement this announcement.
- Bidding documents and further details can be found at www.edf.edu.eg

A INSTRUCTIONS TO TENDERERS تعليمات لمقدمي العطاء

Reference: Supply of electrical laboratory equipment, services and digital learning resources for the ITEC in Fayoum within the framework of the Italian Egyptian Debt for development SWAP program.

Contracting Authority:

Education Development Fund

13 Haroun St. – Dokki – Giza – Egypt

website: www.edf.edu.eg

Contact person:

Dr. Mohamed Megahed – Fayoum ITEC Project Director

Place of destination:

Demo, Technical Secondary School

Fayoum - Egypt

In submitting its' tender, the Tenderer accepts in full and without restriction the special and general conditions governing this Tender as the sole basis of this tendering procedure, whatever its' own conditions of sale may be, which it hereby waives. Tenderers are expected to carefully examine and comply with all instructions, forms, contract provisions and specifications contained in this tender dossier. Failure to submit a tender containing all the required information and documentation within the deadline specified will lead to the rejection of the tender. No account can be taken of any reservation in the tender regarding the tender dossier; any reservation will result in the immediate rejection of the tender without further evaluation.

For the purpose of this Tender, the Contracting Authority will ensure that the procurement procedure is concluded in a transparent manner, based on objective criteria and disregarding any possible external influence.

A glossary of the terms used here is provided in Annex VIII of this tender dossier.

Table of content:

A.1 Supplies to be provided

1.1 The subject of the contract is the supply, delivery, installation, training, after-sales service by the Contractor of the List of Supplies to be provided according to the Technical Specifications detailed in Section E;

1.2 The Tenderers, which apply to this Tender, commit themselves to deliver electrical laboratory equipment to ITEC in Demo, Fayoum Governorate, within 30 days from the date of coming into force of the Supply Contract and within 60 days from the date of signing the contract for selected lots and within 60 days from the date of coming into force of the Supply Contract and within 120 days from the date of signing the contract for the others as specified in Annex II [delivery schedule]. Any delivery date offered by the Tenderer, which postpones the above mentioned delivery date, shall be considered void by the Contracting Authority and the offer will be accepted within the maximum terms allowed by this article.

1.3 The supplies must comply with the technical specifications set out in the tender

dossier (Section E - technical specifications) and conform with the plans, quantities, models, samples, measurements and other instructions. Tenderers are not authorized to tender for a variant in addition to the present.

A.2 Timetable

	DATE	TIME*
Tender publication date	**23/02/2013**	--
Deadline for submission of tenders	**27/03/2013**	**12:00**
Information / Clarification meeting	**17/03/2013**	**12:00**
Deadline for request for any clarifications from the Contracting Authority	**17/03/2013**	**12:00**
Last date on which clarifications are issued by the Contracting Authority	**24/03/2013**	--
Tender opening session**	**27/03/2013**	**12:00**
Notification of award to the successful Tenderer	At most 30 days after deadline for tenders	--
Contract signature	At most 60 days after deadline for tenders	--

* All times are in the time zone of the country of the Contracting Authority
** The Tenderers shall be represented by a legal representative, with a power of attorney, for each public opening of the envelope: 'A', 'B' and 'C'. The opening date and the other meetings will be published on the official board in the same way the Tender Documents have been distributed.

A.3 Participation

3.1 Participation is open on equal terms to all legal and natural persons. The applicable law for the purpose of this tender is the Egyptian one.

3.2 The participants must have a representative office, or a central administration or a principal place of business in Egypt. Tenderers must provide evidence of their status.

3.3 The participants must be registered at a Chamber of Commerce in their country of origin. They must be duly authorized to perform the commercial activities related to the supply for which the tenders are submitted.

3.4 A local agent can form an alliance with one or more companies operating in the scope of work of this tender, and whom he acts as a local representative. The local agent must provide proof that the company(s) forming the alliance are operating in fields provided in this tender. However, Alliances formed form companies competing in this tender will not be accepted by the Contracting Authority.

3.5 Natural or legal persons are not entitled to participate to competitive tendering, or to be awarded contracts, if:

a) They are bankrupt, or being wound up, or are having their affairs administered by the courts, or have entered into an arrangement with creditors, or have suspended their business activities, or are in any analogous situation arising from a similar procedure provided for in national legislation or regulations.

b) They are the subject of proceedings for a declaration of bankruptcy, for winding-up, for administration by the courts, for an arrangement with creditors or for any similar procedure provided for in national legislation or regulations.

c) They or their directors or partners have been convicted of an offence concerning professional conduct by a judgement, which has the force of res judicata.

d) They are guilty of grave professional misconduct proven by any means that the Contracting Authority can justify.

e) They have not fulfilled obligations related to the payment of social security contributions in accordance with the legal provisions of the country where they are established.

f) They have not fulfilled obligations related to the payment of taxes in accordance with the legal provisions of the country where they are established.

g) They are guilty of serious misrepresentation in supplying the information required by the Contracting Authority as a condition of participation in a tender procedure or contract.

h) They are in one of the situations allowing exclusion referred to in the Ethics Clauses (article 27) in connection with the tender or contract

Tenderers must provide, joint to their applications, a sworn statement that they do not fall in any of the categories above-listed. Tenderers who have been guilty of making false declarations will incur exclusion.

3.6 To be eligible for the participation in this tender procedure, Tenderers must provide satisfactory proof to the Contracting Authority of compliance with the necessary administrative, technical and financial requirements and of their capability and adequacy of resources to carry out the contract effectively. In this regard, the Tenderers will supply the Contracting Authority with proper evidence of their eligibility according to the required administrative, technical and financial qualifications and evidence of having the capacity and the means compulsory for a proper fulfilment of the Supply Contract. Therefore, all the tenders will contain the following attachments:

a) Tenderer's submission form (Annex VII), including:

   i. Tenderer's identification (Annex VII.1): Data of the Tenderer and a company presentation and its' profile description (maximum 5 pages). No other promotional material should be included.

   ii. Contact person for this tender (Annex VII.2)

   iii. Economic and financial capacity (Annex VII.3): Official reports concerning accounting and financial situation of the Tenderer i.e. official profit and loss, balance sheet, cash flow and auditors' reports of the last 3 years issued according International Accounting Standards (IAS). The statement should attest the amount of the total sales turnover regarding the last 3 business years prior to the tender. The average sales-turnover of the Tenderer, in the last 3-year period, shall not be less than 3.000.000 EGP or 300.000 euro times the number of lots for which the Tenderer is presenting the offer with a maximum value of 12.000.000 EGP or 1.200.000 euro.

   iv. Staff resources (Annex VII.4): List of the key staff of the Tenderer with their

qualifications and years of experience. The average number of permanent staff of the Tenderer, in the last 3-years period, shall not be less than 10 times the number of lots for which the Tenderer is presenting the offer with a maximum of 30 permanent staff.

v. Experience (Annex VII.5): List of not more than 10 references specifying amount and the Customer's name, especially those concerning past performance in supply contracts, relevant to similar field, and carried out preferably in Middle-East countries in the last five years and the list of all the references in Egypt regardless of the performance, specifying amount and the Customer's name. All the references should indicate the contact person with whom the Contracting Authority can verify the reference.

vi. List of lots submitted (Annex VII.6).

vii. Tenderer's declaration (Annex VII.7) that includes the sworn statement that the Tenderer is not in one of the conditions listed in art. 3.5 and the Tenderer authorisation to request information to Tenderer's references listed in Annex VII.5.

b) Copy of the original documents attesting the provisions of the clauses 3.1; 3.2 and 3.3:

i. Tenderer's place of establishment - Statement issued from a Chamber of Commerce;

ii. Representative office or place of establishment in Egypt - Statement issued from a Chamber of Commerce;

iii. Authorisation to perform activities related to the supply for which the tenders are submitted. - Statement issued from a Chamber of Commerce;

c) Tender guarantee (Annex V) for a value not less than the sum of the value requested for each lot the Tenderer is submitting in his offer.

d) Authorized signature certificate: An official document (statutes, power of attorney, notary statement, etc.) proving that the person who signs on behalf of the Tenderer is duly authorized to do so.

e) Bank account: Bank letter stating all the information of the Tenderer's bank account into which payments should be made.

f) Letter of reference issued by a primary Bank or Financial Institution in the state of the Tenderer attesting the creditable conduct of the Tenderer.

g) UNI EN ISO 9001/2000 updated certification of the Tenderer.

h) Statement regarding any information about any legal proceedings or disputes involving the Tenderer at the present time: such information will be limited to the questions directly concerned with the award or the realization of the Supply Contract.

A.4 Origin of the supplies to be provided

4.1 The supplies should preferably be manufactured in Egypt or in Italy. The Tenderers, under their own responsibility, shall declare for each lot the origin of the supply offered including a list of the items that will not have the origin declared. All the items will be considered without a specified origin if the list is not submitted. The awarded Tenderer should confirm the origin with a Certificate of Origin issued by a Chamber of Commerce.

4.2 The supplies should comply with decision No. 768/2008/EC (CE marking directive). The Tenderers, under their own responsibility, shall declare for each lot the compliance to the decision No. 768/2008/EC, including a list of the items that will not comply with such decision. All the items will be considered not to be compliant with such decision if the list is not submitted. The awarded Tenderer should confirm the compliance to decision No. 768/2008/EC of the delivered items.

A.5 Contract characteristic

5.1 The Contract is a multiple lots supply contract. Tenderers can submit their offers for one or more lots in the same tender. Contract will be assigned lot by lot on the basis of the best technical and economical performance.

A.6 Currency

6.1 Tenders must be presented in EGP.

A.7 Period of validity

7.1 Tenderers shall be bound by their tenders for a period of 120 days from the deadline for the submission of tenders.

7.2 In exceptional circumstances and prior to the expiry of the original tender validity period, the Contracting Authority may ask Tenderers for an extension of this period for 60 days. Tenderers agreeing to the request shall not be permitted to modify their tenders and they are bound to extend the validity of their tender guarantee for the revised period of validity of the tender. If they refuse, without forfeiture of their tender guarantees, their participation in the tender procedure will be terminated.

7.3 The successful Tenderer shall remain bound by its tender for a further period of 60 days following receipt of the notification of its selection.

A.8 Language of offers

8.1 The offers, all correspondence and documents related to the tender exchanged by the Tenderer and the Contracting Authority must be written in the language of the procedure, which is English.

8.2 If the supporting documents are not written in Arabic or English, a sworn translation into English language must be attached.

A.9 Information / Clarification meeting / site visit

9.1 An information / clarification meeting will be held on the date stated in Article 2 of these instructions to tenderers in the premises of the Contracting Authority to answer any questions on the tender dossier which have been forwarded in writing or are raised at the meeting. Minutes will be taken during the meeting and these will be published on the Contracting Authority web site - together with any clarifications in response to written requests which are not addressed during the meeting - at the latest 5 calendar days before the deadline for submission of tenders. All costs of attending this meeting must be met by the tenderers.

9.2 No site visit is foreseen.

A.10 Submission of tenders

10.1 Tenders must be received before the deadline indicated in the timetable as per article 2 of the Instructions to Tenderers, local time of the Contracting Authority. They must include all the documents specified in these Instructions and they shall be submitted to the following address:

Education Development Fund

13 Haroun St. – Dokki – Giza - Egypt

to the Attention of:

Dr. Mohammad Megahed – Fayoum ITEC Project Director

and the envelope shall have the following sentence in bold and highly visible font:

DO NOT OPEN UNTIL

THE TENDER OPENING MEETING

10.2 All tenders must be received by international registered letter with acknowledgement of receipt or hand-delivered with a signed in exchange receipt by the protocol Officer of the Contracting Authority. The legitimate receipt, in order to be valid as tender evidence, shall contain the name and address of the Sender, the name and address of the Receiver, the references of the Tender, the date, the time, the protocol number and the readable signature of the receiver.

10.3 All tenders, including annexes and all supporting documents, must be submitted in three separate sealed envelopes/packages, signed and stamped on the closing strips and sealed with adhesive band, named:

- Envelope A: Administrative Compliance
- Envelope B: Technical Offer
- Envelope C: Financial Offer

and having clearly printed on the front the following identifications:

- the title of the tender: “Supply of electrical laboratory equipment, services and digital learning resources for the ITEC in Fayoum”;
- the name of the Tenderer.

10.4 These three envelopes shall be submitted in a single main envelope/package. This main envelope/package should be sealed with adhesive band, stamped, signed on the closing strips and identified with:

- the address: Education Development Fund, 13 Haroun St. – Dokki – Giza – Egypt, To the Attention of Dr. Mohammad Megahed – Fayoum ITEC Project Director;
- the title of the tender: “Supply of electrical laboratory equipment, services and digital learning resources for the ITEC in Fayoum”;
- the name of the Tenderer;
- the sentence, in a form equal or equivalent to a 16 Arial capital letter bold font: “Not to be opened before the tender opening session”.

10.5 The Envelope B with the Technical Offer should contain inside one separate technical offer envelope for each lot offered. These separate envelopes should be sealed and identified with:

- the title of the tender: “Supply of electrical laboratory equipment, services and digital learning resources for the ITEC in Fayoum”;
- name of the Tenderer;
- Envelope B: Technical Offer;
- the number and the title of the lot offered.

10.6 The Envelope A must contain three envelopes identified as per 10.3 and marked respectively as follows:

- ORIGINAL, Envelope A: Administrative Compliance
- First COPY, Envelope A: Administrative Compliance
- Second COPY, Envelope A: Administrative Compliance

10.7 Each technical offer envelope for each lot offered must contain three envelopes identified as per 10.5 and marked respectively as follows:

- ORIGINAL, Envelope B: Technical Offer, Lot No. title …
- First COPY, Envelope B: Technical Offer, Lot No. title …
- Second COPY, Envelope B: Technical Offer, Lot No. title …

10.8 The Envelope C must contain three envelopes identified as per 10.3 and marked respectively as follows:

- ORIGINAL, Envelope C: Financial Offer
- First COPY, Envelope C: Financial Offer
- Second COPY, Envelope C: Financial Offer

10.9 Any tender submitted without providing the requested copies will be excluded without appeal.

A.11 Content of tenders

11.1 The envelopes should include all the documents and information justifying the compliance to the requirements stated in these instructions to tenderer. In particular the annexes provided by the tenderer should be numbered progressively and the number should be included in the appropriate line of the corresponding grid. The Tenderer should provide only relevant and appropriate documentation in the limit of 50 A4 pages for each envelope.

11.2 Additional information can be included exclusively in digital form providing a CD/DVD with a table of content and a guide for accessing the documentation provided. The digital information should be compatible with OSX, Linux and Windows operating systems. The tenderer should also assure that the digital material is free from viruses and bugs.

11.3 The tenderer should fill, date, sign with a blue pen, stamp and include in the proper envelope all the pages of the grids requested in this article. These grids will be included in the contract if awarded to the tenderer.

11.4 The Envelope A - Administrative Compliance – should include the Annex XI.1 – Administrative Compliance Assessment grid – and the documents and information required in article 3.6 of these instructions.

11.5 The Envelope B - Technical Offer – Lot No and title – should include:

- the Annex XI.2 – Technical Compliance Assessment grid – and all the documents and information required to comply with the general and minimum requirements indicated in Annex E – Technical Specifications.
- the Annex XI.3 – Origin and Compliance to 768/2008/EC Evaluation grid – and all the documents and information required to comply with requirements indicated in article 4.1 and 4.2 of these instructions.
- the Annex XI.4 – Practical Exercises Evaluation grid – and all the documents and information required to comply with the requirements stated in the Technical Specifications Annex E and assess the number and type of practical exercises offered by the tenderer. The tenderer should include the documentation (instruction for teachers and students, assessment grid, background theory, pictures, guidelines, manufacturers manuals, etc.) associated to one of the practical exercises offered, as an example of typical documentation of practical exercises.
- the Annex XI.5 – Digital Learning Resources Evaluation grid – and all the documents and the information required to comply with the requirements stated in the Technical Specifications Annex E and assess the language and the content of the Resources offered by the tenderer. The tenderer should include an example of digital resource as a typical resource offered and the complete list of similar digital resources offered. The tenderer at his discretion can add other examples in order to provide a better view of the resources that can be provided with this tender. A demo will be highly appreciated.
- a CD with a spread-sheet containing the information included in the grids XI.2, XI.3,

XI.4 and XI.5 and a scanned copy of the documents submitted. In case of a difference between the spread-sheet and the printed and signed grid the second, the Evaluation Committee will decide if these differences will constitute justified reason for rejecting the tender. In any case the information on signed grids will prevail.

11.6 The Envelope C – Financial Offer – should include the Annex I – Price List only.

A.12 Pricing

12.1 Tenderers must quote prices for delivery, installation, training and after-sales services to the place of destination in accordance with the conditions stated in these instructions to tenderers, excluding all duties and taxes applicable to their importation and VAT but including all duties, taxes and other burden generated outside the country of the Contracting Authority. In case the Contracting Authority will not be able to provide in due time means of exemptions from duties and taxes applicable to their importation into the country, the Contracting Authority will add these costs to the price of the contract.

12.2 The prices for the contract are fixed and not subject to revision, they include all the supplies with all the accessory charges, even if not specifically mentioned in the Contract, necessary to complete the activities in terms of both quality and quantity.

12.3 Tenderers shall be deemed to have satisfied themselves, before submitting their tender, as to their correctness and sufficiency, to have taken account of all that is required for the full and proper performance of the contract and to have included all costs in their rates and prices.

A.13 Additional information

13.1 The tender dossier should be clear enough to avoid tenderers from having to request additional information during the procedure. The Contracting Authority has no obligation to provide clarifications or additional information and its' silence does not represent a positive or negative answer nor an answer of any sort. Not under any circumstances, the silence of the Contracting Authority, regarding a request of clarification, may represent a rightful element on which basis the Tenderers can claim any sort of prejudice, if such clarification has not been made available for anybody. However, the Contracting Authority, in order to facilitate the tendering of the supplies, undertakes the duty of receiving and analysing requests for clarification from the Tenderers.

13.2 If the Contracting Authority, either on its own initiative or in response to a request from a prospective Tenderer, provides additional information on the tender dossier, it shall make available such information to all the other prospective Tenderers at the same time by using adequate ways of communication such as the Contracting Authority Web site.

13.3 Tenderers may submit request for clarification in written form before the clarification session as indicated in Article 2 of these instructions to tenderers, specifying the publication reference and the contract title. The requests shall arrive to the Contracting Authority no later than the date stipulated in Article 2 of these Instructions to

tenderers. The replies to the requests of clarification will be published on the Contracting Authority web site at the latest 5 calendar days before the deadline for submission of tenders. The requests shall be submitted by post to the following address:

Education Development Fund,

13 Haroun St. – Dokki – Giza – Egypt,

To the Attention of:

Dr. Mohammad Megahed – Fayoum ITEC Project Director

13.4 The requests arrived in a different form with respect to the above mentioned one, or if they arrive after the submission deadline, will not be considered.

13.5 Any prospective Tenderer, seeking to arrange individual meetings with the representative of the Contracting Authority during the tender period, may incur in exclusion from the tender procedure.

A.14 Correspondence with the Contracting Authority

14.1 After submitting the tenders to the Contracting Authority, any sort of correspondence between the Tenderers and the Contracting Authority shall take place by contacting directly the Contracting Authority at the following address:

Education Development Fund

13 Haroun St. – Dokki – Giza - Egypt

to the Attention of:

Dr. Mohammad Megahed– Fayoum ITEC Project Director

A.15 Alteration or withdrawal of tenders

15.1 Tenderers may alter or withdraw their tenders by written notification prior to the deadline for submission of tenders referred to in Article 10. No tender may be altered after this deadline. Withdrawals shall be unconditional and shall end all participation in the tender procedure.

15.2 Any notifications of alteration or withdrawal shall be prepared and submitted in accordance with the Tender Instructions contained in this document. The outer envelope must be marked (other then with the other indications according to the provisions in Article 10) with the word 'Alteration' or 'Withdrawal' as appropriate.

15.3 No tender may be withdrawn in the period between the deadline for submission of tenders referred to in Article 10 and the expiry of the tender validity period. The withdrawal of a tender during this interval may result in forfeiture of the tender guarantee.

A.16 Costs for preparing tenders and ownership of tenders

16.1 No costs incurred by the Tenderer in preparing and submitting the tender shall be reimbursable. All costs incurred by the Tenderer in preparing and submitting the tender shall be borne by the Tenderer.

16.2 The Contracting Authority retains ownership in all tenders received under this tender procedure. Consequently, Tenderers have no right to have their tenders returned to them.

A.17 Opening of the tenders

17.1 Tenders shall be opened, at the Contracting Authority premises, in a public session by the Tender Opening Committee, according to the timing indicated in the timetable (paragraph 2 of the Instructions to Tenderers) local time of the Contracting Authority.

17.2 Only the tenders, which have been received within the fixed expiry term, will be taken into consideration. On receiving the tenders, the bundle will be registered according to the order of arrival in the relevant register (see Annex XI – summary of tenders). Registration number, date and time of arrival will be hand-written on the bundle. The bundle will remain sealed and will be kept in a safe place until the opening session.

17.3 During the public opening of the Tenders, the Tender Opening Committee, after verification that the bundles are in conformity to the above Article 10, will proceed to the opening of the bundles, reading the Tenderer's name and drawing up the tender opening report (see Annex XI). For all the tenders, the following procedure shall be followed:

1. Bring the tenders to the opening session venue;
2. Record the withdrawal notices and keep them closed and stored in a safe location the corresponding tenders;
3. Record tender alteration communications and mark such tenders – in order to include / consider the alterations;
4. Announce any detail / information that the Tender Opening Committee deems necessary for the opening section;
5. Verify the existence of 3 (three) different separate and sealed envelopes, inside the bundle, named: "Envelope A: Administrative Compliance"; "Envelope B: Technical offer"; "Envelope C: Financial offer", and record the status of envelopes.

17.4 The Evaluation Committee will arrange meeting(s) separate from the opening session to conduct the evaluation process as follows:

1. Open the "Envelope A: Administrative Compliance", verify the presence and validity of the required documents (see Annex XI.1) and assess the compliance to the requirements using the Administrative Compliance grid included in the Annexes to the evaluation report. In case of any missing data, notify the tenderer to complete the missing documents within seven (7) calendar days starting from the date of the notification.
2. Verify the references provided by the Tenderer.
3. Open the envelopes inside the "Envelope B: Technical Offer", verify the presence and validity of the required documents (see Annex XI.2) and for each lot assess

the compliance to the requirements using the Technical Compliance grid and the Evaluation grids included in the Annexes to the evaluation report. Reject the tenders that do not comply with these requirements and store them in a safe location.

4. Inform, through the Contracting Authority, in written form, all Tenderers satisfying the Technical Compliance about the public opening date of the envelopes containing the “Financial Offer”.

17.5 During the opening of the Financial offers, the Tender Opening Committee, after assessing the envelopes are in conformity to the above Article 10, will proceed to the opening of the Envelope C, reading the Tenderer’s name and drawing up the tender opening report (see Annex XI). For all the tenders will be performed the following steps:

1. The Offer’s price for each lot for each qualified Tenderer will be recorded.
2. The tenders will be also verified in order to find out any sort of mistake in calculations and additions. The Tender Opening Committee will amend miscalculations as follows:
    a) If there is a difference between the amounts in figures and the ones in words, the last ones will be considered valid;
    b) If there is a difference in the calculations, the operation is calculated with the provided numbers and compared with the result provided in the tender; the highest result is considered valid except if, in the Committee’s opinion, there is an evident mistake in the number provided. In this case, the total amount shown will be considered valid and the Committee will amend the value.
3. The Evaluation Committee will complete the scoring of the lots considering technical and financial evaluations and will announce the ranking of each lot.

17.6 Any tender amount amended by the Tender Opening Committee according to Article 17.5.2 shall be considered binding for the Tenderer. If the Tenderer does not accept the amended tender amount, his tender will be rejected.

17.7 After the opening of the tenders, no information concerning examination, specification, evaluation and comparison of the tenders, as well as no recommendation for the award of the Supply Contract will be provided to the Tenderers or to any other person not officially involved in this procedure.

17.8 Any attempt by a Tenderer to affect the Evaluation Committee in the procedure of examination, specification, evaluation and comparison of the tenders and in the decisions concerning the identification of the most suitable tenders will cause the rejection of his tender.

17.9 If a tender does not comply with the tender dossier, the Evaluation Committee will reject it and it cannot be made suitable any more by any sort of amendment.

A.18 Assessment and Evaluation of the Tenders

18.1 The criteria for the technical and financial assessment and evaluation, to be

carried out by the Committee, are detailed in these instructions to Tenderers.

18.2 The Evaluation Committee will carry out the assessment and evaluation concerning the compliance of tenders to the general requirements for qualification and eligibility criteria:

a) the analysis and evaluation of the technical documentation in order to assess its wide correspondence with the technical specifications;
b) the analysis of the financial proposal and its evaluation in comparison with the other tenders;
c) the provisional awarding.

For the above-mentioned exercises, the Evaluation Committee will draw up the relevant minutes of meeting signed by all members.

18.3 In order to proceed examining, evaluating and comparing the tenders, the Contracting Authority shall be able to request the Tenderers for additional information concerning their offers, including splitting the prices per unit. The requests and the answers will be in written form and may take place by any means as described in the Article 13. The alteration of the tender price, technical details of the offer or the content of other information provided, will not be allowed with the only exception of alterations needed to confirm an amendment coming from a miscalculation found out by the Committee during the evaluation of the tenders, in compliance with Article 17.5.2.

18.4 According to the present article, a suitable tender means an offer that complies with all the terms, conditions and instructions provided by the tender dossier, without any considerable deviation or reserve. A “considerable deviation or reserve” means any discrepancy, alternative, condition or variable able to affect the significance, the quality or the execution of the Supply Contract, in a substantial way and which does not comply with the tender dossier. Or on equal event which, limits the Purchaser’s rights or the Tenderer’s obligations according to the Supply Contract or causes unfair prejudice to the position in the competition of the Tenderers who have submitted suitable tenders. In particular:

- the tenders that comply with all administrative requirements as stated in the previous article 3.6 of these Instructions for tenderers are considered suitable by the Contracting Authority and admitted to the technical evaluation.
- the Lots that reach a threshold of 70% of the points as indicated in the following article 19 regarding the Scoring System are considered suitable and admitted to the financial evaluation.

18.5 The tenders, which have been considered suitable for technical evaluation, will be assessed from a technical point of view to verify their conformity to the Tender dossier and will be scored, based on their relevant technical qualities. The criteria for assessment and scoring adopted by the Evaluation Committee will be the following:

- the technical compliance will be based on the declarations provided by the Tenderer in the technical compliance grid;
- the origin will be based on the declaration provided by the Tenderer and

considering and weighting the items of different origin from the one declared;

- the compliance to the decision No. 768/2008/EC will be based on the declaration provided by the Tenderer and considering and weighting the items that will not be in compliance to such decision;
- the number of practical exercises considered for the scoring will be based on the declaration provided by the Tenderer and considering and weighting the items included / excluded from the list provided in the Technical Specifications Annex E and the ones eventually added by the tenderer.
- the language of the digital learning resources will be based on the information provided by the Tenderer and considering the balance between the learning resources provided.
- the content of the digital resources will be based assessing the examples provided by the tenderer.

18.6 After the technical assessment and scoring, the tenders will be admitted to the financial evaluation phase. In the assessment and scoring the Evaluation Committee will take in consideration only the price offered by the Tenderer.

18.7 The awarding criteria will be the price and other quality criteria as indicated in the following article 19 Scoring System. The contract will be awarded to the best tender according to the assigned score.

18.8 The Tenderer, which deems himself damaged because of a mistake or any irregularity occurred during the evaluation procedure or the supply's award, shall submit the claim directly to the Contracting Authority (The Person in Charge at the Contracting Authority). The Contracting Authority has thirty (30) working days to reply, starting from the receiving date of the complaint. After such time elapses, without answer, the claim shall be considered rejected.

A.19 Evaluation and Scoring Criteria

Criteria for evaluation	Maximum Allocated Points per Criterion			Scoring Criteria Offer Score according to its degree of Compliance with set Criteria
	Lots 1, 2, 12	Lots 5, 6	Lots 3, 4, 7, 8, 9, 10, 11	
Compliance to Technical Specification	70	50	25	• At least 90 % of the items are in compliance = Up to 100 % of maximum number of points allocated • At least 80 % of the items are in compliance = Up to 75 % of maximum number of points allocated • At least 70 % of the items are in compliance = Up to 50 % of maximum number of points allocated • At least 50 % of the items are in compliance = Up to 25 % of maximum number of points allocated

Criteria for evaluation	Maximum Allocated Points per Criterion			Scoring Criteria Offer Score according to its degree of Compliance with set Criteria
	Lots 1, 2, 12	Lots 5, 6	Lots 3, 4, 7, 8, 9, 10, 11	
				• Less than 50 % of the items are in compliance = Zero Points
Origin of Goods	30	30	15	• Egypt or Italy = Maximum number of points, • EU country, USA, Canada, Japan, Korea, Taiwan = 50 % of maximum allocated points, • Others or without a specified origin, or local customization of foreign goods = zero points
Compliance to European Parliament and Council decision N.768/2008/EC		20	10	• At least 90 % of the items are market CE = Up to 100 % of maximum number of points allocated • At least 80 % of the items are market CE = Up to 75 % of maximum number of points allocated • At least 70 % of the items are market CE = Up to 50 % of maximum number of points allocated • At least 60 % of the items are market CE = Up to 25 % of maximum number of points allocated • Less than 50 % of the items are market CE = Zero Points
Number and content of practical exercises			20	• At least 90 % of the practical exercises requested = Up to 100 % of maximum number of points allocated • At least 80 % of the practical exercises requested = Up to 75 % of maximum number of points allocated • At least 70 % of the practical exercises requested = Up to 50 % of maximum number of points allocated • At least 60 % of the practical exercises requested = Up to 25 % of maximum number of points allocated • Less than 50 % of the practical exercises requested = Zero Points
Language of Digital Learning Resources			10	• Scores will depend upon offered languages as per the following weight; In Arabic = (40 %), Italian (40 %). English (20 %) of maximum allocated points
Content of Digital Learning Resources			20	• The maximum score will be assigned to the tender with the content that matches the practical exercises. • Scores of other tenders are scored proportionally according to a descending order of match.
	100	100	100	

19.1 The total points gained by each Tenderer for each lot are calculated based on Technical Evaluation. The tendered lots achieving less than 70 points will be rejected and will not enter into the financial evaluation.

19.2 The Financial Technical Indicator for each tendered lot is calculated as the price offered by a Tenderer divided by the total points acquired in the technical evaluation

(EGP per point). The least value for the Financial Technical Indicator will determine the winning Tenderer.

A.20 Award notice

20.1 The “Contracting Authority”, based on the technical and financial evaluation report done by the Evaluation Committee concerning the supplies of this tender, will confirm the selection of the Tenderer to whom the supply contract will be awarded. In this case and before the expiry of the tender validity period, the Contracting Authority shall notify the Tenderer in written form that its tender resulted to be the most qualified and the chosen one for providing the supplies.

20.2 Unless otherwise provided, as soon as the Tenderer has provided the Performance Guarantee according to the Article 23.2, the Contracting Authority will promptly notify the other Tenderers that their tenders haven’t been successful and return their Tender Guarantee to them.

A.21 Drawing up of the supply contract

21.1 After receiving the notice concerning the result of the tender by the Evaluation Committee, the Contracting Authority shall draw up the Supply Contract which will be submitted to the Tenderer for signing.

21.2 It will contain at least:

a) The list of the documents forming the Supply Contract, showing the order of importance of the documents;
b) Any enclosure and derogation to the over mentioned documents, duly approved;
c) Price of the Supply Contract;
d) Decisions made by the Contracting Authority.

A.22 Signing of the supply contract

22.1 Unless otherwise provided, the Contractor (as Supplier) and the Contracting Authority (as Purchaser), will sign the Supply Contract within thirty (30) working days from the awarding date.

22.2 The Contracting Authority will not sign the Supply Contract until the Performance Guarantee has been provided by the Contractor.

22.3 In case of withdrawal of the Contractor, the Contracting Authority can exercise its rights on the Tender Guarantee. Moreover, the Contracting Authority can assign the Tender to other Tenderers, according to the position of their offers in the classification or a new Tender procedure can be started.

22.4 The Supply Contract can be signed by all the signatories in Egypt on the same date, at the Contracting Authority premises, or it can be signed in different locations by the different signatories. In this last case the order for signing the contract by the signatories is the following:

a) The Contractor
b) The Contracting Authority

A.23 Signature of the supply contract and Performance Guarantee

23.1 The Contracting Authority will communicate in written form the provisional award notification to the successful Tenderer and will provide the draft of the contract.

23.2 Unless otherwise provided in the tender dossier, the successful Tenderer will provide the Performance Guarantee, and the documentary proof to show that it does not fall into the non-eligible categories listed in this Tender dossier, within 20 days starting from the day after the date of receiving of the award notice from the Contracting Authority.

23.3 If the Successful Tenderer fails to provide the Performance Guarantee, the contract signed and the updated delivery schedule within 30 calendar days following the notification of the provisional award; or if the successful Tenderer is found to have provided false information, the award will be considered null and void. In such a case, the Contracting Authority may award the tender to another Tenderer or cancel the tender procedure. In such event, without prejudice to the Contracting-Authority's right to seize the guarantee, claim compensation or pursue any other remedy in respect of such failure, the successful Tenderer will have no claim whatsoever on the Contracting Authority.

23.4 Within 60 calendar days, but not before 30 calendar days, from the final award notification, the Contracting Authority and the successful Tenderer shall sign and date the Contract.

23.5 In case the supply contract is not signed in Egypt, within 30 days from receipt of the performance guarantee and two copies of the contract, already signed by the Tenderer, the Contracting Authority shall sign and date the contract and return the second original to the Tenderer. On signing the contract, the successful Tenderer will become the Contractor and the contract will enter into force.

23.6 The Performance Guarantee referred to in the General Conditions is set at 5% of the price of the contract (inclusive of the Tender Guarantee) and must be presented in the form specified in the Annex III to the tender dossier. The Contracting Authority will release the Performance Guarantee or what remains of it within seven (7) days of the date of the final acceptance.

A.24 Contract modification

24.1 The contract may only be modified in the following cases:

a) modifications of applicable laws and regulations;
b) unforeseen and unforeseeable circumstances, including the implementation of new materials, components or technology not existing when the award procedure was commenced, provided that the modifications may only ameliorate the quality of the performance, without increasing the contract total amount and without affecting the quality of other goods inside the Supply;
c) events related to the nature or the quality of the goods or places where the contract activities take place, which occur during the contract execution and were unforeseeable when the contract was made;
d) when the need arises, the Contracting Authority has the right to increase or

decrease the quantity of the requested items per lot within the limit of twenty-five per cent (25%) of total items per lot with the same price and quality provided in the tender.

24.2 Contractors cannot refuse the above-mentioned modifications and the Contracting Authority has the right to have such modifications executed at the same contractual conditions;

24.3 Contractors shall execute any non-substantial modification that the Contracting Authority may see fit, provided that the nature of the activity is not fundamentally altered and no additional costs are imposed.

A.25 Tender Guarantee

25.1 The tender guarantee referred to in Article 3.6 c) above must be presented in the form specified in the Annex V and shall remain valid for 120 days after the period of validity of the tender.

25.2 Tender guarantees provided by Tenderers who have not been selected will be released not later than 60 days after the signing of the Supply Contract. The tender guarantee of the successful Tenderer shall be released on the signing of the Supply Contract, once the Performance Guarantee has been submitted.

25.3 The Guarantor that provides the Tender guarantee shall commit itself, in case of successful selection of the supplier, to issue the Performance Guarantee according to the requirements of this Instruction to Tenderers. The supplier can provide a commitment letter also issued by another Guarantor, different respect the Guarantor who issued the Tender Guarantee.

A.26 Ethics clauses

26.1 Any attempt by a candidate or Tenderer to obtain confidential information, enter into unlawful agreements with competitors or influence the committee or the Contracting Authority during the process of examining, clarifying, evaluating and comparing tenders will lead to the rejection of its candidacy or tender and may result in administrative penalties.

26.2 Without the Contracting Authority's prior written authorization, a Supplier and its' staff or any other company with which the Supplier is associated or linked may not, even on an ancillary or subcontracting basis, supply other services, carry out work or supply equipment for the project. This prohibition also applies to any other projects that could, by the nature of the contract, give rise to a conflict of interest on the part of the Supplier.

26.3 When putting forward a candidacy or tender, the candidate or Tenderer must declare that he is not in a situation affected by potential conflict of interest, and that it has no particular link with other Tenderers or parties involved in the project. Should such a situation arise during performance of the contract, the Supplier must immediately inform the Contracting Authority.

26.4 The Supplier must at all time act honourably and impartially in accordance with the code of conduct of its profession. It must refrain from making public statements

about the project or services without the Contracting Authority's prior approval. It may not commit the Contracting Authority in any way without its' prior written consent.

26.5 For the duration of the contract, the Supplier and its staff must respect human rights and undertake not to violate the political, cultural and religious mores of the recipient state.

26.6 The Supplier shall not accept any payment connected with the contract other than that provided for therein. The Supplier and its' staff must not exercise any activity or receive any advantage inconsistent with their obligations to the Contracting Authority.

26.7 The Supplier and its' staff are obliged to maintain professional secrecy for the entire duration of the contract and after its completion. All reports and documents drawn up or received by the Supplier are confidential.

26.8 The contract shall govern the contracting parties' use of all reports and documents drawn up, received or presented by them during the execution of the contract.

26.9 The Supplier shall refrain from any relationship likely to compromise its' independence or that of its' staff. If the Supplier ceases to be independent, the Contracting Authority may, regardless of any collateral cost, terminate the contract without further notice and without the Supplier having any claim of compensation.

26.10 The Contracting Authority reserves the right to suspend or cancel the contract if corrupt practices of any kind are discovered at any stage of the award process. For the purposes of this provision, "corrupt practices" are the offer of a bribe, gift, gratuity or commission to any person as an inducement or reward for performing or refraining from any act relating to the award of a contract or implementation of a contract already concluded with the Contracting Authority.

26.11 Tenders will be rejected or contracts terminated if it emerges that the award or execution of a contract has given rise to unusual commercial expense. Such unusual commercial expense, are commissions not mentioned in the main contract or not stemming from a properly concluded contract referring to the main contract: commissions not paid in return for any actual and legitimate service; commission paid to a place with a favourable tax and bank secrecy policy; commissions paid to a recipient who is not clearly identified; commissions paid to a company which has every appearance of being a front company.

26.12 The Supplier undertakes to supply the Contracting Authority with supporting evidence regarding the conditions in which the contract is being executed. The Contracting Authority may carry out whatever documentary or on the spot checks it deems necessary to find evidence in cases of suspected unusual commercial expenses.

26.13 Failure to comply with one or more of the ethics clauses may result in the exclusion of the candidate, Tenderer (or Supplier) from other contracts by the Contracting Authority and in penalties. The individual or company in question must be informed of the fact in written form.

A.27 Cancellation of the tender procedure

27.1 In the event of cancellation of the tender procedure, the Contracting Authority will notify Tenderers of the cancellation. If the tender procedure is cancelled before envelopes of any tender have been opened, the unopened and sealed envelopes will be returned to the Tenderers.

27.2 Cancellation may occur when:

a) the tender procedure has been unsuccessful, i.e., no qualitatively or financially worthwhile tender has been received or there is no response at all;
b) the economic or technical data of the project have been fundamentally altered;
c) exceptional circumstances or force majeure render normal performance of the contract impossible;
d) all technically compliant tenders exceed the financial resources available;
e) there have been irregularities in the procedure, in particular where these have prevented fair competition.

27.3 After cancelling a tender procedure, the Contracting Authority may decide:

a) to launch a new tender procedure;
b) to open negotiations with one or more Tenderers who comply with the selection criteria and have submitted technically compliant tenders, provided that the original terms of the contract have not been substantially altered;
c) not to award the contract.

27.4 Whatever the case, the final decision is taken by the Contracting Authority.

B GENERAL CONDITIONS الشروط العامة

Reference: Supply of electrical laboratory equipment, services and digital learning resources for the ITEC in Fayoum in the frame of the Italian Egyptian Debt for development SWAP program.

Contracting Authority:

Education Development Fund

13 Haroun St. – Dokki – Giza – Egypt

Place of destination:

Demo, Technical Secondary School

Fayoum - Egypt

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PRELIMINARY PROVISIONS

Article 1 Definitions

1.1 The headings and titles in these General Conditions are only meant to guide and shall not be taken as part thereof or be taken into consideration in the interpretation of the contract.

1.2 Where the context so permits, words in the singular shall be deemed to include the plural and vice versa, and words in the masculine shall be deemed to include the feminine and vice versa.

1.3 Words designating persons or parties shall include firms and companies and any organization having legal capacity.

Article 2 Law and language of the Supply Contract

2.1 The Special Conditions shall specify the law governing all matters not covered by the contract.

2.2 The contract and all written communications between the parties will be drafted in the language of the procedure.

Article 3 Order of precedence of contract documents

3.1 Save where otherwise provided in the special conditions, the contract is made up of the following documents, in order of precedence:

a) the contract agreement;

b) the Special Conditions with the Technical Annex;

c) the Contractor's tender, including annexes;

d) the financial tender;

e) the General Conditions (Section B);

f) [the minutes of the information meeting/site visit];

Addenda have the order of precedence of the document they are modifying.

3.2 The different documents constituting the contract shall be deemed mutually explanatory; in case of ambiguity or divergence, they should be read in the order in which they appear above.

Article 4 Communications

4.1 Communications between the Contracting Authority and the Contractor shall be exclusively in writing. Unless otherwise specified in the Special Conditions, communications between the Contracting Authority and the Contractor shall be sent by post, cable, telex, fax transmission, or delivered by hand, to the addresses designated by the Parties for that purpose.

4.2 If the person sending a communication requires acknowledgement of receipt, he shall indicate this in his communication. Whenever there is a deadline for the receipt of a written communication, the sender should ask for an acknowledgement of receipt of his communication. In any event, the sender shall take all necessary measures to ensure receipt of his communication.

4.3 Wherever the contract requires giving or issuing any “notice”, “consent”, “approval”, “certificate” or “decision”, unless otherwise specified, such “notice”, “consent”, “approval”, “certificate” or “decision”, shall be in written form, and the words "notify", "certify", "approve" or "decide" shall be construed accordingly. Any of such: “consent”, “approval”, “certificate” or “decision” shall not be unreasonably withheld or delayed.

Article 5 Assignment

The Contractor may not assign the contract or any part thereof, or any benefit or interest.

Article 6 Subcontracting

The Contractor may not subcontract any part of the contract.

OBLIGATIONS OF THE CONTRACTING AUTHORITY

Article 7 Supply of documents

7.1 If necessary, within thirty (30) days from contract signing, the Contracting Authority shall provide the Contractor, free of charge, with a copy of the drawings prepared for implementing the contract, a copy of the specifications and any other contractual document. The Contractor may purchase additional copies of these drawings, specifications and other documents, according to availability. Upon issuing the warranty certificate, or upon final acceptance, the Contractor shall return to the Contracting Authority all drawings, specifications and other contract documents.

7.2 Unless it is necessary for the purposes of the contract, the drawings, specifications and other documents provided by the Contracting Authority shall not be used or communicated to a third party by the Contractor without the prior consent of the Contracting Authority.

7.3 The Contracting Authority shall have authority to issue to the Contractor administrative orders incorporating such supplementary documents and instructions as are necessary for the proper execution of the contract and the remedying of any defects therein.

7.4 The special conditions must indicate the procedure used, if necessary, by the Contracting Authority to approve drawings and other documents provided by the Contractor.

Article 8 Assistance with local regulations

8.1 The Contractor may request the assistance of the Contracting Authority in obtaining copies of laws, regulations and information on local customs, orders or byelaws of the country where the supplies are to be delivered which may affect the Contractor in the performance of his obligations under the contract. The Contracting Authority may provide the assistance requested to the Contractor at the Contractor's cost.

8.2 If necessary, the Contractor shall duly notify the Contracting Authority of details of the supplies so that the Contracting Authority can obtain the requisite permits or import licences.

8.3 If necessary, the Contracting Authority will undertake to obtain, in accordance with the Special Conditions, the requisite permits or import licences within a reasonable period, taking account of the performance dates for the contract.

8.4 Subject to the provisions of the laws and regulations on foreign labour of the State in which the supplies have to be delivered, the Contracting Authority shall make every effort to help the Contractor obtaining all the visas and permits required. With reference to the personnel whose services the Contractor, and the Contracting Authority, consider necessary, and residence permits for their families.

OBLIGATIONS OF THE CONTRACTOR

Article 9 General Obligations

9.1 The Contractor shall perform the contract with due care and diligence including, where specified, the design, manufacture, delivery to site, erecting, testing and commissioning of the supplies and carrying out of any other work including the remedying of any defects in the supplies. The Contractor shall also provide all necessary equipment, supervision, labour and facilities required for the performance of the contract.

9.2 The Contractor shall comply with administrative orders given by the Contracting Authority. Where the Contractor considers that the requirement of an administrative order goes beyond the scope of the contract, he shall, facing a contract's breach, notify the Contracting Authority thereof, giving his reasons, within thirty (30) days of receipt of the order. Execution of the administrative order shall not be suspended because of this notice.

9.3 The Contractor shall follow and respect all laws and regulations in force in the State of the Contracting Authority as stipulated in Article 2 and shall ensure that his personnel, their dependants, and his local employees also respect and attend by all such laws and regulations. The Contractor shall indemnify the Contracting Authority against any claims and proceedings arising from any infringement by the Contractor, his employees and their dependants of such laws and regulations.

9.4 The Contractor shall treat all documents and information received in connection with the contract as private and confidential. He shall not, save in so far as may be necessary for the purposes of the contract's execution, publish or disclose any particulars of the contract without the prior consent in writing of the Contracting Authority. If any disagreement arises as to the necessity for any publication or disclosure for the purpose of the contract, the decision of the Contracting Authority shall be final.

9.5 If the Contractor is an alliance of two or more persons [as per the provisions of article 3.4 of Instructions to Tenderers], all these persons shall be jointly and severally bound to fulfil the terms of the contract according to the law of the State of the Contracting Authority. They shall also designate, on request of the Contracting Authority, one of them to act as leader, with the authority to bind the alliance. The parts of the alliance shall not be altered without prior written consent of the Contracting Authority.

Article 10 Origin

10.1 The supplies should preferably be manufactured in Egypt or in Italy. The origin should be the one declared in the Contractor's Tender and annexes.

Article 11 Performance guarantee

11.1 The Contractor shall provide, within thirty (30) days of receipt of the notification of the award of contract, the Contracting Authority with a guarantee for the full and proper performance of the contract. The amount of the guarantee shall be specified in the Special Conditions. It shall not exceed the provisions of article 23.6 of the Instructions to Tenderers, including any amounts stipulated in addenda to the contract.

11.2 The performance guarantee shall be held against payment to the Contracting Authority for any loss resulting from the Contractor's failure to perform his contractual obligations fully and properly.

11.3 The performance guarantee shall be in the format given in Annex III and may be provided in the form of a bank guarantee, a banker's draft, a certified cheque, a bond provided by an insurance and/or bonding company or an irrevocable letter of credit. If the performance guarantee is to be provided in the form of a bank guarantee, a banker's draft, a certified cheque or a bond, it shall be issued by a bank or insurance and/or bonding company in accordance with the eligibility criteria applicable for the award of the contract.

11.4 The performance guarantee shall be denominated in EGP. No payments shall be made in favour of the Contractor prior to the provision of the guarantee. The guarantee shall continue to remain valid until the contract has been fully and properly performed.

11.5 During the performance of the contract, if the natural or legal person providing the guarantee is not able to attend by his commitments, the guarantee shall cease to be valid. The Contracting Authority shall give formal notice to the Contractor to provide a new guarantee on the same terms as the previous one. Should the Contractor fail to provide a new guarantee, the Contracting Authority may terminate the contract. Before so doing, the Contracting Authority shall send a registered letter with acknowledgement of receipt, which shall set a new deadline of no less than fifteen (15) days from the day of delivery of the letter.

11.6 The Contracting Authority shall demand payment from the guarantee of all sums for which the guarantor is liable under the guarantee due to the Contractor's default under the contract, in accordance with the terms of the guarantee and up to the value thereof. The guarantor shall, without delay, pay those sums upon demand of the Contracting Authority, and may not raise any objection for any reason whatsoever. Before making any claim under the performance guarantee, the Contracting Authority shall notify the Contractor stating the nature of the default in respect of which the claim is to be made.

11.7 Except for such part as may be specified in the Special Conditions in respect of after-sales service, the performance guarantee or what remains shall be released within seven (7) working days of the issue of the final acceptance certificate. Such Performance Bond shall be delivered to the Contracting Authority prior the Contract signature.

Article 12 Insurance

12.1 An insurance policy may be required to cover the carriage of supplies; the conditions of this insurance policy may be specified in Article XII of the Special Conditions, which may also specify other types of insurance to be taken out by the Contractor.

12.2 Notwithstanding the Contractor's insurance obligations under Article 12.1, the Contractor shall bear sole liability for, and indemnify the Contracting Authority against any claims by third parties for damage to property or personal injuries arising from the

execution of the contract by the Contractor, his subcontractors and their employees.

Article 13 Performance programme

13.1 If the Special Conditions so require, the Contractor shall submit a programme of performance of the contract for the approval of the Contracting Authority. The programme shall contain at least the following:

a) the order in which the Contractor proposes to perform the contract including design, manufacture, delivery to place of receipt, installation, testing and commissioning;

b) the deadlines for submission and approval of the drawings;

c) a general description of the methods which the Contractor proposes to adopt for executing the contract; and

d) such further details and information as the Contracting Authority may reasonably require.

13.2 The Special Conditions shall specify the time limit within which the programme of performance must be submitted to the Contracting Authority for approval. They may set time limits within which the Contractor must submit all or part of the detailed drawings, documents and items. They shall also state the deadline for the Contracting Authority's approval or acceptance of the programme of performance, detailed drawings, documents and items. The approval of the programme by the Contracting Authority shall not relieve the Contractor of any of his obligations under the contract.

13.3 No material alteration to the programme shall be made without the approval of the Contracting Authority. If, however, the progress of the performance of the contract does not conform to the programme, the Contracting Authority may instruct the Contractor to revise the programme and submit the revised programme for approval.

Article 14 Contractor's drawings

14.1 If the Special Conditions so provide, the Contractor shall submit to the Contracting Authority for approval:

a) the drawings, documents, samples and/or models, according to the time limits and procedures laid down in the Special Conditions;

b) such drawings as the Contracting Authority may reasonably require for the performance of the contract.

14.2 If the Contracting Authority fails to notify his decision of approval referred to in Article 14.1 within the deadlines referred to in the contract or the approved programme of performance, such drawings, documents, samples or models shall be deemed to be approved on expiry of the deadlines. If no deadline is specified, they shall be deemed to be approved thirty (30) days after receipt.

14.3 Approved drawings, documents, samples and models shall be signed or otherwise identified by the Contracting Authority and may only be departed from on the Contracting Authority's instructions. Any of the Contractor's drawings, documents,

samples or models, which the Contracting Authority fails to approve, shall immediately be modified to meet the requirements of the Contracting Authority and resubmitted by the Contractor for approval.

14.4 The Contractor shall supply additional copies of approved drawings in the form and numbers stated in the contract or in subsequent administrative orders.

14.5 The approval of the drawings, documents, samples or models by the Contracting Authority shall not relieve the Contractor from any of his obligations under the contract.

14.6 The Contracting Authority, through the Technical Committee, shall have the right to inspect all drawings, documents, samples or models relating to the contract at the Contractor's premises at all reasonable times.

14.7 Before provisional acceptance of the supplies, the Contractor shall supply operation and maintenance manuals together with drawings, which shall be in such detail that shall enable the Contracting Authority to operate, maintain, adjust and repair all parts of the supplies. Unless otherwise stated in the Special Conditions, the manuals and drawings shall be in the language of the contract and in such forms and numbers as stated in the contract. The supplies shall not be considered completed for the purpose of provisional acceptance until such manuals and drawings have been supplied to the Contracting Authority.

Article 15 Sufficiency of tender prices

15.1 Beneath any provisions which may be laid down in the Special Conditions, the Contractor shall be deemed to have satisfied himself before submitting his tender, as to the correctness and sufficiency of the tender, and to have taken into account everything which is required for the full and proper performance of the contract, and to have included in his rates and prices all costs related to the supplies, in particular:

a. the costs of transport;

b. the costs of handling, packing, loading, unloading, transit, delivery, unpacking, checking, insurance and other administrative costs in connection with the supplies. The packaging shall be the property of the Contracting Authority unless otherwise provided in the Special Conditions;

c. the cost of documents relating to the supplies where such documents are required by the Contracting Authority;

d. performance and supervision of on-site assembly and/or commissioning of the delivered supplies;

e. furnishing of tools required for assembly and/or maintenance of the delivered supplies;

f. furnishing of detailed operation and maintenance manuals for each unit of the delivered supplies, as specified in the contract;

g. supervision or maintenance and/or repair of the supplies, for a period of time stated in the contract, with the stipulation that this service shall not release the Contractor from any warranty obligations under the contract;

h. training of the Contracting Authority's personnel, at the Contractor's factory and/or elsewhere as specified in the contract.

15.2 Since the Contractor is deemed to have determined his prices based on his own calculations, operations and estimates, he shall carry out, at no additional charge, any work that is the subject of any item in his tender, for which he indicates neither a unit price nor a lump sum.

Article 16 Tax and customs arrangements

16.1 For supplies to be imported into the country of the Contracting Authority, all duties and taxes applicable to their importation shall be excluded.

16.2 Whatever the origin of the supplies, the contract shall be exempt from stamp and registration duties.

Article 17 Patents and licences

Save where otherwise provided in the Special Conditions, the Contractor shall indemnify the Contracting Authority against any claim resulting from the use as specified in the contract of patents, licences, drawings, models, or brand or trademarks, unless such infringement results from compliance with the design or specification provided by the Contracting Authority.

COMMENCEMENT OF EXECUTION AND DELAYS

Article 18 Commencement order

18.1 The Contracting Authority shall fix the date on which performance of the contract is to commence and advise the Contractor thereof either in the notice of award of the contract or by administrative order issued.

18.2 Save where the Parties agree otherwise, performance of the contract shall begin no later than ninety (90) days after notification of award of contract. After that date, the Contractor shall be entitled not to perform the contract and to obtain its termination or compensation for the damage he has suffered. The Contractor shall forfeit this right unless he exercises it within thirty (30) days of the expiry of the ninety (90)-day period.

Article 19 Period of execution of tasks

19.1 The period of execution of tasks shall commence on the date fixed in accordance with Article 18 and shall be as stated in the contract, without prejudice to extensions of the period which may be granted under Article 20.

19.2 If provision is made for separate periods of performance for separate lots, such periods shall not be aggregated in cases where one Contractor is allocated more than one lot.

Article 20 Extension of period of execution

20.1 The Contractor may request an extension to the period of execution if his performance of the contract is delayed, or expected to be delayed, for any of the

following reasons:

a) extra or additional supplies ordered by the Contracting Authority;

b) exceptional weather conditions in the country of the Contracting Authority which may affect installation or erection of the supplies;

c) physical obstructions or conditions which may affect delivery of the supplies, which could not reasonably have been foreseen by a competent contractor;

d) administrative orders affecting the date of completion other than those arising from the Contractor's default;

e) failure of the Contracting Authority to fulfil its obligations under the contract;

f) any suspension of the delivery and/or installation of the supplies which is not due to the Contractor's default;

g) force majeure;

h) any other causes referred to in these General Conditions, which are not due to the Contractor's default.

20.2 Within fifteen (15) days from the moment he realizes that a delay might occur, the Contractor shall notify the Contracting Authority of his intention to make a request of extension of the contract's period to which he considers himself entitled. Except when otherwise agreed between the Contractor and the Contracting Authority, the Contractor (within thirty (30) days) provides the Contracting Authority with comprehensive details, so that the request can be examined.

20.3 Within thirty (30) days, the Contracting Authority shall grant, by written notice after due consultation if appropriate, the Contractor with the extension of the performance period, if needed with retroactive effect, or inform the Contractor that he is not entitled to an extension. Elapsed the above-mentioned term, the silence of the Contracting Authority shall be interpreted as denial.

Article 21 Delays in execution

21.1 If the Contractor fails under his own responsibility to deliver any or all of the goods or perform the services within the time limit(s) specified in the contract, the Contracting Authority shall be entitled, without formal notice and without prejudice to other remedies under the contract, and for every day which shall elapse between the expiry of the contractual period and the actual date of completion, to liquidated damages equal to 5/1000 of the value of the undelivered supplies to a maximum of fifteen percent (15%) of the total value of the contract.

21.2 If the non-delivery of any of the goods prevents the normal use of the supplies as a whole, the liquidated damages provided for in paragraph 21.1 shall be calculated based on the total contract value.

21.3 If the Contracting Authority has become entitled to claim at least fifteen percent (15%) of the contract value, it may, after giving written notice to the Contractor:

a) seize the performance guarantee;

b) terminate the contract, in which case the Contractor will have no right to compensation; and

c) enter into a contract with a third party for the provision of the balance of the supplies. The Contractor shall not be paid for this part of the contract. The Contractor shall also be liable for the additional costs and damages caused by his failure.

Article 22 Alterations

22.1 The Contracting Authority reserves the right, at the time of contracting, to alter the quantities as stated in the Special Conditions. As a result of the alteration, the total value of the supplies per lot may not rise, or fall in the quantities, by more than twenty-five per cent (25%) of the contract price. The unit prices used in the tender shall be applicable to the quantities procured under the variation.

22.2 The Contracting Authority shall have the power to order any variation to any part of the supplies necessary for the proper completion and/or functioning of the supplies. Such variations may include additions, omissions, substitutions, changes in quality, quantity, form, character, kind, as well as drawings, designs or specifications where the supplies are to be specifically manufactured for the Contracting Authority, method of shipment or packing, place of delivery, and in the specified sequence, method or timing of execution of the supplies. No order for a variation may result in the invalidation of the contract, but the financial effect of any such variation shall be valued in accordance with Article 22.6.

22.3 No variation shall be made except by administrative order, subject to the following provisions:

a) if, for whatever reason, the Contracting Authority believes it necessary to give an order orally, he shall confirm the order by an administrative order as soon as possible;

b) if the Contractor confirms in writing an oral order given for the purpose of Article 22.3.a and the confirmation is not contradicted in writing forthwith by the Contracting Authority, an administrative order shall be deemed to have been issued for the variation;

c) an administrative order for a variation shall not be required when increasing or decreasing the quantity of any work because the estimates in the bill of quantities or budget breakdown were too high or too low.

22.4 Save where Article 22.2 provides otherwise, prior to issuing an administrative order for a variation, the Contracting Authority shall notify the Contractor of the nature and form of that variation. As soon as possible, after receiving such notice, the Contractor shall submit to the Contracting Authority a proposal containing:

a) a description of the tasks, if any, to be performed or the measures to be taken and a performance programme;

b) any necessary modifications to the performance programme or to any of the

Contractor's obligations under the contract;

c) any adjustment to the contract price in accordance with the rules set out in Article 22.

22.5 Following the receipt of the Contractor's submission referred to in Article 22.4, and providing that the variation has not exceeded twenty-five percent (25%), the Contractor is expected to carry out the required variation within the deadlines provided by the Contracting Authority. If the Contracting Authority decides that the variation is to be carried out, he shall issue an administrative order stating that the variation is to be made at the prices and under the conditions given in the Contractor's submission referred to in Article 22.4 or as modified by the Contracting Authority in accordance with Article 22.6.

22.6 The prices for all variations ordered by the Contracting Authority in accordance with Articles 22.3 and 22.5 shall be ascertained in accordance with the following principles:

a) where the task is of similar character and executed under similar conditions to an item priced in the bill of quantities or budget breakdown, it shall be valued at such rates and prices contained therein;

b) where the task is not of similar character or is not executed under similar conditions, the rates and prices in the contract shall be used as the basis for valuation in so far as is reasonable, failing which a fair valuation shall be made by the Contracting Authority;

c) where a variation is necessitated by a default or breach of contract by the Contractor, any additional cost attributable to such variation shall be borne by the Contractor.

22.7 On receipt of the administrative order requesting the variation, the Contractor shall proceed to carry out the variation, and he is bounded by that order as if such variation were stated in the contract. The supplies shall not be delayed pending the granting of any extension of time for completion or adjustment to the contract price. Where the order for a variation precedes the adjustment to the contract price, the Contractor shall keep records of the costs of undertaking the variation and of the time expended thereon. Such records shall be open to inspection by the Technical Committee at all reasonable times.

22.8 Contractual variations not covered by an administrative order must be formalised through an addendum to the contract signed by all parties. Changes of address or bank account may simply be notified in writing by the Contractor to the Contracting Authority.

Article 23 Suspension

23.1 The Contracting Authority may instruct, by administrative order, at any time, the Contractor to suspend:

a) the manufacture of the supplies; or

b) the delivery of supplies to the place of acceptance at the time specified for

delivery in the performance programme or, if no time specified, at the time appropriate for it to be delivered; or

c) the installation of the supplies, which have been delivered to the place of acceptance.

23.2 The Contractor shall protect and secure, during suspensions, the concerned supplies at the Contractor's warehouse or elsewhere, against any deterioration, loss or damage to the extent possible and as instructed by the Contracting Authority. So, even if the supplies have been delivered to the place of acceptance in accordance with the contract but their installation has been suspended by the Contracting Authority.

23.3 Additional expenses incurred in connection with such protective measure shall be added to the contract price. The Contractor shall not be paid any additional expenses if the suspension is:

a) dealt with differently in the contract; or

b) necessary by reason of normal climatic conditions at the place of acceptance; or

c) necessary owing to some default of the Contractor; or

d) necessary for the safety or the proper execution of the contract or any part thereof insofar as such necessity does not arise from any act or default by the Contracting Authority.

23.4 The Contractor shall not be entitled to such additions to the contract price unless he notifies the Contracting Authority, within thirty (30) days of receiving the order to suspend progress of delivery, of his intention to make a claim for them.

23.5 The Contracting Authority, after consultation with the Contractor, shall determine such extra payment and/or extension of the period of performance to be made to the Contractor in respect of such claim as it shall be, in the opinion of the Contracting Authority, fair and reasonable.

23.6 If the period of suspension exceeds one hundred and eighty (180) days, and the suspension is not due to the Contractor's default, the Contractor may, by notice to the Contracting Authority, request to proceed with the supplies within thirty (30) days, or terminate the contract.

23.7 Where the award procedure or performance of the contract is vitiated by substantial errors or irregularities or by fraud, the Contracting Authority shall suspend performance of the contract. Where such errors, irregularities or fraud are attributable to the Contractor, the Contracting Authority may also refuse to make payments or may recover monies already paid, in proportion to the seriousness of the errors, irregularities or fraud.

23.8 The purpose of suspending the contract shall be to verify whether presumed substantial errors and irregularities or fraud have actually occurred. If they are not confirmed, performance of the contract shall resume as soon as possible. A substantial error or irregularity shall be any infringement of a contract or regulatory provision resulting from an act or an omission that causes or might cause a loss to the Community

budget.

MATERIALS AND WORKMANSHIP

Article 24 Quality of supplies

24.1 The commodities to be supplied shall match the technical specifications laid down in the “Special Conditions” and shall totally suit drawings, models, samples and other requirements stated in the Supply Contract. Such drawings, models, samples and other requirements shall be at disposal of the Technical Committee, the Contracting Authority for identification and for the entire period of the Supply Contract execution.

24.2 The Technical Committee shall give notice to the Contractor of the date and other details of the case, for the preliminary technical test. Such communication shall specify materials, items and samples to be tested according to the Supply Contract, the lot number and the testing place, case by case. Materials, items and samples mentioned in the aforesaid notice, shall be identified in accordance with the testing requirements before their installation.

24.3 In the circumstance that, after a new testing, defects, faults or imperfections are pointed out, even if successfully tested in a previous assessment, such materials or items to be supplied or to be used for manufacturing other equipment can be refused and shall be immediately replaced by the Contractor. The Contractor might be given the possibility to repair or replace the refused materials or items and, on their turn, they might be used for other supplies only in case the Technical Committee decides they have been repaired or replaced in a satisfactory way.

Article 25 Inspection and testing

25.1 The Contractor shall ensure that the supplies are delivered to the testing place in time, in order to allow to the Technical Committee to perform the test.

25.2 By means of the Technical Committee, the Contracting Authority has the right to control, examine and check periodically items, used materials and execution as well as to control the going on of planning, manufacturing or assembly of what has been planned, manufactured or assembled for delivery according to the Supply Contract. Such control aims to check whether quality and quantity of items and used materials are those required by the Supply Contract. The above-mentioned operations can be carried out at the planning, manufacturing or assembly site, or at the testing site or elsewhere provided it is stated in the Supply Contract.

25.3 With reference to the above-mentioned inspection and testing, the Contractor shall:

a) Provide the Technical Committee, provisionally and free of charge, with assistance, samples or items, machines, equipment, tools, manpower, materials, drawings and manufacturing data usually required for inspection and testing;

b) Decide, together with the Technical Committee, date and place for testing;

c) Assure the Technical Committee free access to the testing site at any reasonable time.

25.4 In case the Technical Committee fails to attend the testing at the agreed date, the Contractor, unless different instructions, can carry out the aforesaid testing being the Technical Committee considered as present. The Technical Committee shall immediately send copies of the testing results, duly certified, to the Contracting Authority.

25.5 In case items and materials get successfully through the testing mentioned in the present article, the Technical Committee shall notify it to the Contractor and shall sign the relevant certificate.

25.6 In case of disagreement between the Technical Committee and the Contractor concerning the testing results, each Party shall notify to the other its own opinion within fifteen (15) days from the disagreement admission. Either the Technical Committee or the Contractor may ask for a new testing to be carried out at the previous conditions or, at of one of the Parties' request, by an expert chosen by mutual consent. All testing reports shall be forwarded to the Contracting Authority and their results are final. The counter test's expenses are at charge of whom the counter test results were unfavourable.

25.7 Carrying out their tasks, the Technical Committee and the personnel entrusted with the job by the same Committee shall not disclose to anybody, except for those who have the right to know them, information obtained during the inspection and testing performance and concerning manufacturing procedures and enterprise running.

PAYMENTS

Article 26 General principles

26.1 Payments shall be made in EGP. The Special Conditions shall lay down the administrative or technical conditions governing payments of pre-financing, interim and/or final payments made in accordance with the General Conditions.

26.2 Payments due by the Contracting Authority shall be made to the bank account mentioned on the financial identification form completed by the Contractor. The same form, annexed to the payment request, must be used to report changes of bank account.

26.3 Sums due shall be paid within no more than forty-five (45) days from the date on which an admissible payment request is registered by the competent department specified in the Special Conditions. The date of payment shall be the date on which the institution's account is debited. The payment request shall not be admissible if one or more essential requirements are not met.

26.4 The forty-five (45) day period may be suspended by notifying the Contractor that the payment request cannot be fulfilled because the sum is not due, because appropriate substantiating documents have not been provided or because there is evidence that the expenditure might not be eligible. In the latter case, an inspection may be carried out on the spot for the purpose of further checks. The Contractor shall provide clarifications, modifications or further information within thirty (30) days of being asked to do so. The payment period shall continue to run from the date on which a properly drawn-up payment request is registered.

26.5 The Supplier shall have the right to receive and advance payment if desired. In such circumstance, the payments shall be made as follows:

a) Twenty-five percent (25%) of the contract price after the signing of the contract, against provision of the performance guarantee and a security guaranteeing repayment in full of this pre-financing;

b) Sixty-five percent (65%) of the contract price following provisional acceptance of the supplies;

c) Ten percent (10%) of the contract price, as payment of the balance outstanding, following final acceptance of the supplies. However, this payment of ten percent (10%) may, if the Contractor so wishes, be made at the same time as the sixty five percent (65%) instalment referred to in paragraph 26.5.b if the Contractor provides a security guaranteeing repayment of the full amount of the ten percent (10%) balance. The security shall be released within sixty (60) days of the final acceptance of the supplies.

In case the Supplier does not request an advance payment, the payments shall be made as follows respecting the provisions of the Special Conditions:

a) Ninety percent (90%) of the contract price following provisional acceptance of the supplies;

b) Ten percent (10%) of the contract price, as payment of the balance outstanding, following final acceptance of the supplies. However, this payment of ten percent (10%) may, if the Contractor so wishes, can be carried out at the same time as the sixty five percent (65%) instalment referred in previous clause 26.5.b if the Contractor provides a bank guaranteeing repayment of the full amount of the ten percent (10%) balance. The security shall be released within sixty (60) days of the final acceptance of the supplies.

26.6 Where only part of the supplies has been delivered, the sixty five percent (65%) payment due following partial provisional acceptance shall be calculated on the value of the supplies, which have actually been accepted, and the security shall be released accordingly.

26.7 For supplies not covered by a warranty period, the payments listed above shall be aggregated. The conditions to which the payments of pre-financing, interim and/or final payments, are subject, shall be as stated in the Special Conditions.

26.8 The payment obligations of the Contracting Authority under this Contract shall cease at most eighteen (18) months after the end of the period of execution of the tasks, unless the Contract is terminated in accordance with these General Conditions.

26.9 Unless otherwise stipulated in the Special Conditions, contracts shall be at fixed prices, which shall not be revised.

26.10 The Contractor undertakes to repay any amount paid in excess of the final amount due to the Contracting Authority within forty five (45) days of receiving a request to do so. Should the Contractor fail to make repayment within the deadline set by the Contracting Authority, the Contracting Authority may (unless the Contractor is a

government department or public body of a Member State of the Community) increase the amounts due by adding interest:

26.11 At the rediscount rate applied by the European Central Bank to member banks. On the first day of the month in which the time limit expired, plus three and a half percentage (3.5%) points. The default interest shall be incurred over the time, which elapses between the date of the payment deadline set by the Contracting Authority (exclusive), and the date on which payment is actually made (inclusive). Any partial payments shall first cover the interest thus established.

Amounts to be repaid to the Contracting Authority may be offset against amounts of any kind due to the Contractor. This shall not affect the Parties' right to agree on payment in instalments. Bank charges incurred by the repayment of amounts due to the Contracting Authority shall be borne entirely by the Contractor.

Article 27 Delayed payments

27.1 The Contracting Authority shall pay the Contractor the sums due within forty five (45) days of the date on which an admissible payment is registered, in accordance with Article 26 of these General Conditions. This period shall begin to run from the approval of these documents by the competent department referred to in Article 26 of the Special Conditions. These documents shall be approved either expressly or tacitly, in the absence of any written reaction in the forty five (45) days following their receipt accompanied by the requisite documents.

27.2 Once the deadline laid down in Article 27.1 has expired, the Contractor may, within two (2) months of late payment, claim late-payment interest at the rediscount rate applied by the issuing institution of the country of the Contracting Authority where payments are in national currency;

The late-payment interest shall apply to the time that elapses between the date of the payment deadline (exclusive) and the date on which the Contracting Authority's account is debited (inclusive).

27.3 Any default in payment of more than ninety (90) days from the expiry of the period laid down in Article 27.1 shall entitle the Contractor to terminate it, with thirty (30) days' prior notice to the Contracting Authority

ACCEPTANCE AND MAINTENANCE

Article 28 Delivery

28.1 The Contractor shall deliver the supplies in conformity to the conditions specified in the Supply Contract. The Contractor shall pack the goods such as to protect them from damages or deterioration during their transport to final destination. Packaging shall be such to withstand, with no limits, rough handling, extreme temperatures, saltiness and precipitation during outdoor transport and storage. Packaging size and weight shall be suited, if necessary, to the distance of the goods' final destination and to the possible lacking of facilities for handling heavy loads during transport.

28.2 Packaging, marking and documents inside and outside packages shall meet the

particular requirements stated in the Supply Contract, except for any modification due to new instructions of the Contracting Authority.

28.3 The Contractor is responsible for the goods' delivery to the place stated in the Supply Contract.

28.4 A special list filled by the Contractor shall accompany each supply. Such list shall particularly state:

- Date of delivery;
- Reference to the Supply Contract;
- The Contractor's name and address;
- Goods specifications.

28.5 Each package shall be clearly marked with the serial number corresponding to the same number in the list mentioned in Article 28.4 and the package shall contain the list of its relevant content.

29.6 The delivery shall be considered completed when the relevant certificate - issued by the Technical Committee and attesting that the goods have been supplied according to the Supply Contract and the invoice(s) and all documents listed in the "Special Conditions" have been given to the Contracting Authority or to the Contracting Authority - is at both Parties' disposal. With reference to the goods delivered at the Contracting Authority's factory, he shall assume the Consignee's responsibility in the period between the goods storage and the testing.

28.7 Materials and goods supplied according to the Supply Contract are totally insured, in favour of the Contracting Authority, against losses or accidental damages due to manufacturing or acquisition, transport, storage and delivery as laid down in the "Special Conditions".

Article 29 Verification operations

29.1 Goods can be tested only after prescribed inspections and preliminary tests have been carried out. Inspections and tests can be carried out at the delivery place and/or at the goods' final destination.

29.2 During goods delivery and before they are taken over, the Technical Committee can:

a) Within injunction terms, order the removal from the testing place of the goods that, in its opinion, are not in conformity with the Supply Contract;

b) Order to replace such goods with new proper equipment;

c) Apart from any proceeding testing or advance payment, order to undo and correctly repeat any work which is judged not in compliance with the Supply Contract as far as materials, manufacturing or engineering are concerned and for which the Contractor is responsible;

d) Decide that a delivered item or the materials used by the Contractor is or are not

in line with the Supply Contract, or that the goods, or part of them, do not satisfy the requirements stated in the Supply Contract.

29.3 The Contractor shall immediately repair the indicated defects at his own charge. In case of default, the Contracting Authority has the right to engage or pay other people for repairing such defects and claim back to the Contractor all the relevant expenses or deduct such expenses from the amounts due to the Contractor.

29.4 Goods that do not comply with the required quality are refused and can be marked with a special sign. The sign shall be such not to damage and change their commercial value. The Technical Committee shall fix a date and settle that, within that same date, the refused goods shall be removed from the testing place at the Contractor care; on the contrary, goods will be officially removed at the Contractor charge and risk. Goods manufactured with refused materials will be refused.

29.5 What stated in this article does not compromise the Contracting Authority's capacity to claim his rights according to Article 21 of these General Conditions nor does it free in any way the Contractor from the warranty or from any other obligation stated in the Supply Contract.

Article 30 Provisional acceptance

30.1 The supplies shall be taken over by the Contracting Authority when they have been delivered in accordance with the contract, and they have satisfactorily passed the required tests, or they have been commissioned as the case may be, and when a certificate of provisional acceptance has been issued or it is deemed to have been issued.

30.2 The Contractor may apply, by notice to the Contracting Authority, for a certificate of provisional acceptance when supplies are ready for provisional acceptance. The Contracting Authority shall within thirty (30) days of receipt of the Contractor's application either:

a) issue the certificate of provisional acceptance to the Contractor with a copy to the Contracting Authority stating, where appropriate, his reservations, and, inter alia, the date on which, in his opinion, the supplies were completed in accordance with the contract and ready for provisional acceptance; or

b) reject the application, giving his reasons and specifying the action which, in his opinion, is required of the Contractor for the certificate to be issued.

30.3 Should exceptional circumstances make it impossible to proceed with the acceptance of the supplies during the period fixed for provisional or final acceptance, a statement certifying such impossibility shall be drawn up by the Contracting Authority after consultation, where possible, with the Contractor. The certificate of acceptance or rejection shall be drawn up within 30 days following the date on which such impossibility ceases to exist. The Contractor shall not invoke these circumstances in order to avoid the obligation of presenting the supplies in a state suitable for acceptance.

30.4 If the Contracting Authority fails either to issue the certificate of provisional acceptance or to reject the supplies within the period of thirty (30) days, it shall be

deemed to have issued the certificate on the last day of that period, except where the certificate of provisional acceptance is deemed to constitute a certificate of final acceptance. In this case, Article 30.5 below does not apply. If the supplies are divided by the contract into lots, the Contractor shall be entitled to apply for a separate certificate for each lot.

30.5 In case of partial delivery, the Contracting Authority reserves the right to give partial provisional acceptance.

30.6 Upon provisional acceptance of the supplies, the Contractor shall dismantle and remove temporary structures and materials no longer required for use in connection with the performance of the contract. He shall also remove any litter or obstruction and redress any change in the condition of the place of acceptance as required by the contract.

30.7 Goods are taken over by the Contracting Authority after they have been delivered in compliance with the Supply Contract, have successfully passed the required tests, have been assembled, if the case, and a certificate of provisional testing has been issued.

30.8 The Contractor shall be able to ask the Contracting Authority, in writing, a certificate of provisional testing with a maximum advance of fifteen (15) days from the date when, according to the Contractor, the goods will be ready for provisional testing. Within thirty (30) days from the receipt of the Contractor's request, the Contracting Authority shall:

a) Send to the Contractor, and copy to the Contracting Authority, the certificate of provisional testing, pointing out any possible reservations and the date when, in its opinion, goods were ready for provisional testing in compliance with the Supply Contract, or

b) Refuse the request, justifying the decision and stating what, in its opinion, the Contractor shall do for the certificate release.

30.9 In case unpredictable circumstances hamper the testing of goods in the period chosen for provisional or final testing, the Contracting Authority, by mutual consent, if possible, with the Contractor, writes down a report about such circumstances. The testing or the refusal certificate shall be issued within thirty (30) days from the date obstacles to goods testing cease to exist. The Contractor shall not refer to the aforesaid circumstances to avoid goods availability for testing.

30.10 If the Contracting Authority does not issue the certificate of provisional testing or does not reject the supplies within a period of thirty (30) days, it is considered that he has issued the certificate on the deadline of the period and the certification of the Technical Committee will be valid. The certificate of provisional testing is not the acknowledgement of the whole delivery of the supplies. If the Supply Contract states that the supplies must be divided in lots, the Contractor has the right to ask for single certificates for every lot.

30.11 After the certificate's of provisional testing issue, the Contractor shall dismantle and restore temporary plants and materials that are no more necessary for the Supply

Contract's execution. He shall remove all obstacles and changes to the testing place.

In case the commodities are delivered according to IncoTerms clause DAP only, they shall be transported from the selected Egyptian seaport to the location indicated in the Tender Document and taken over by the final beneficiary (Consignee) or a representative designated by the Contracting Authority. After the commodities have been delivered according to Contract's clauses, assembled and installed if the case, a proper certificate of conformity is issued by the Technical Committee, which survey the overall shipping procedures and also issues a Certificate of Conformity at loading and a Certificate of Discharge. After, or normally jointly, the Certificate of conformity at final destination and of delivery has been issued, the Consignee produces a "Declaration of Delivery-location Suitability" attesting that the delivery location agreed in the Contract is ready to receive the commodities and for having them assembled and installed on site. This last certificate allows the Contractor to assemble and install the goods and obtaining the subsequent Certificate of Provisional Acceptance. The Contractor shall pay attention to respect the timing for shipment & delivery to the selected Egyptian seaport. Upon arrival to the Egyptian territory any delay from the arrival date, at the seaport, to the delivery date at the final destination, due to custom, administrative and governmental procedures, shall be borne by the Contracting Authority. The importation shall be considered duty-free and any taxes, custom duties and expenses relevant to the import of goods within the Commodity Aid Programme, into the Arab Republic of Egypt, as per Article 3 of the Contract, are at Contracting Authority's charge. After delivery and onsite installation the Contractor receives the Certificate of Provisional Acceptance by the Consignee through the Contracting Authority.

Article 31 Warranty obligations

31.1 The Contractor shall warrant that the supplies are new, unused, of the most recent models and incorporate all recent improvements in design and materials, unless otherwise provided in the contract. The Contractor shall further warrant that all supplies shall have no defect arising from design, materials or workmanship, except insofar as the design or materials are required by the specifications, or from any act or omission, that may develop under use of the supplies in the conditions obtaining in the country of the Contracting Authority. This warranty shall remain valid as specified in the Special Conditions.

31.2 The Contractor shall be responsible for repair any defect, or damage, to any part of the supplies, which may appear or occur during the warranty period and which:

a) results from the use of defective materials, faulty workmanship or design of the Contractor; or

b) results from any act or omission of the Contractor during the warranty period; or

c) appears in the course of an inspection made by, or on behalf of, the Contracting Authority.

31.3 The Contractor shall at his own cost make good the defect or damage as soon as practicable. The warranty period for all items replaced or repaired shall recommence from the date on which the replacement or repair was made to the satisfaction of the

Contracting Authority. If the contract provides for partial acceptance, the warranty period shall be extended only for the part of the supplies affected by the replacement or repair.

31.4 If any such defect appears or such damage occurs during the warranty period, the Contracting Authority shall notify the Contractor. If the Contractor fails to remedy a defect or damage within the time limit stipulated in the notification, the Contracting Authority may:

a) remedy the defect or the damage itself, or employ someone else to carry out the work at the Contractor's risk and cost, in which case the costs incurred by the Contracting Authority shall be deducted from monies due to or guarantees held against the Contractor or from both; or

b) terminate the contract.

31.5 In emergencies, where the Contractor cannot be reached immediately or, having been reached, is unable to take the measures required, the Contracting Authority may have the work carried out at the expense of the Contractor. The Contracting Authority shall as soon as practicable inform the Contractor of the action taken.

31.6 The maintenance obligations shall be stipulated in the Special Conditions and technical specifications. If the duration of the warranty period is not specified, it shall be 365 days. The warranty period shall commence on the date of provisional acceptance and may recommence in accordance with Article 31.3.

Article 32 After-sales service

An after-sales service, if required by the contract, shall be provided in accordance with the details stipulated in the Special Conditions. The Contractor shall undertake to carry out or have carried out the maintenance and repair of supplies and to provide a rapid supply of spare parts. The Special Conditions may specify that the Contractor must provide any or all of the following materials, notifications and documents pertaining to spare parts manufactured or distributed by the Contractor:

a) such spare parts as the Contracting Authority may choose to purchase from the Contractor, it being understood that this choice shall not release the Contractor from any warranty obligations under the contract;

b) in the event of termination of production of the spare parts, advance notification to the Contracting Authority to allow it to procure the parts required and, following such termination, provision at no cost to the Contracting Authority of the blueprints, drawings and specifications of the spare parts, if and when requested.

Article 33 Final acceptance

33.1 Upon expiry of the warranty period or, where there is more than one period, upon expiry of the latest period, and when all defects or damage have been repaired, the Contracting Authority shall issue the Contractor a final acceptance certificate, stating the date on which the Contractor completed his obligations under the contract, with the Contracting Authority's satisfaction. The final acceptance certificate shall be issued by the Contracting Authority no later than ninety (90) days from the expiry of the warranty

period or as soon as any repairs ordered under Article 31 have been completed to the satisfaction of the Contracting Authority.

33.2 The contract shall not be considered to have been performed in full until the final acceptance certificate has been signed or is deemed to have been signed by the Contracting Authority.

33.3 Notwithstanding the issue of the final acceptance certificate, the Contractor and the Contracting Authority shall remain liable for the fulfilment of any obligation incurred under the contract prior to the issue of the final acceptance certificate which remains unperformed at the time that final acceptance certificate is issued. The nature and extent of any such obligation shall be determined by reference to the provisions of the contract.

BREACH OF CONTRACT AND TERMINATION

Article 34 Breach of contract

34.1 A Party shall be in a breach of contract if it fails to discharge any of its obligations under the contract.

34.2 Where a breach of contract occurs, the injured Party shall be entitled to the following remedies:

a) damages; and/or

b) termination of the contract.

34.3 In addition to the above-mentioned measures, damages may be awarded. They may be either:

a) general damages; or

b) liquidated damages.

The amount and procedures for these damages shall be laid down in the Special Conditions.

34.4 Recovery of damages, disbursements or expenses resulting from the application of measures provided for in this Article shall be carried out by deduction from the sums due to the Contractor, from the deposit, or by payment under the guarantee.

Article 35 Termination by the Contracting Authority

35.1 The Contracting Authority or the Contracting Authority can at any time and with immediate effect cancel the Supply Contract, remaining valid what stated in clause no. 35.2.

35.2 If not rules instructions are established, the Contracting Authority or the Contracting Authority may cancel the Supply Contract, notifying it to the Contractor upon a 7 days' notice:

a) In case the Contractor does not supply the goods in perfect compliance with the Supply Contract;

b) In case the Contractor does not comply, within a reasonable time, with the Technical Committee's injunction to remedy negligence or defaults in the Supply Contract's performance within the prescribed terms;

c) In case the Contractor refuses or disregards to carry out the Person's in Charge's instructions;

d) In case the Contractor transfers or sub supplies the Supply Contract, or part of it;

e) In case the Contractor goes bankrupt or becomes insolvent or is the object of a precautionary attachment or is entering into a composition with creditors or keeps on carrying out his activity under the direction of a receiver, a trustee or an officer acting on behalf of creditors, or goes into liquidation;

f) In case a final sentence has been passed for an offence concerning the Contractor professional behaviour;

g) In case other kinds of legal incapacity hamper the Supply Contract's performance;

h) In case a corporate structure modification causes a change in the Contractor's legal status;

i) In case the Contractor fails to submit the required bond or insurance or a new bond or insurance if the person who gave the previous bond or insurance cannot fulfil the undertaken obligations.

35.3 The cancellation of the Supply Contract does not compromise any other right the Supply Contract grants the Contracting Authority and the Contractor. Afterwards, the Contracting Authority may sign other purchase contracts with a third party. The Contractor responsibility concerning any delays in the Supply Contract performance ceases to exist immediately after the Supply Contract's cancellation but any other previous responsibility linked to the Supply Contract stands.

35.4 After having notified that the Supply Contract has been cancelled, the Contracting Authority shall order the Contractor to take immediate measures to settle in a prompt and correct way the Supply Contract at minimum cost.

35.5 The Contracting Authority shall certify, as soon as the Supply Contract cancellation is occurred, the value of the goods and all the amounts due to the Contractor at the cancellation date.

35.6 In case of cancellation:

a) In the Contractor's presence or of his representatives or after due convocation of all of them, the Contracting Authority shall write out as soon as possible a report on the delivered goods and draw up an inventory of the supplied materials which have not been used. Besides, it is drawn up a list of the amounts the Contractor shall pay to the Contracting Authority;

b) The Contracting Authority may buy, at market price, materials and items supplied or ordered by the Contractor and still to be paid by the Contracting Authority himself at the conditions deemed advisable by the Contracting Authority.

35.7 The Contracting Authority is not obliged to effect other payments in favour of the Contractor until goods have been entirely delivered. The Contracting Authority is neither obliged to effect other payments in favour of the Contractor before the Contractor reimburses to the Contracting Authority the eventual additional expenses due to the supplies' execution, or else the Contracting Authority shall settle the outstanding to the Contractor before the Supply Contract cancellation.

35.8 In case the Contracting Authority cancels the Supply Contract because of the Contractor's default, the Contractor shall reimburse him for the suffered damages to a maximum amount fixed in the Supply Contract. If no maximum amount has been fixed, the Contracting Authority will receive only the share of the Supply Contract's price corresponding to the amount of that part of the goods that, because of the Contractor's default, do not comply with their intended use.

35.9 Where the Supply Contract cancellation is not caused by the Contractor's actions or omissions, the Contractor himself has the right to demand not only the amount due for the already supplied goods as well as a compensation for the suffered damages.

Article 36 Termination by the Contractor

36.1 The Contractor, upon a 14 days' notice to the Contracting Authority, may cancel the Supply Contract in case the Contracting Authority:

a) Omits to effect the payments due to the Contractor;

b) Keeps on failing to fulfil the obligations laid down in this Supply Contract despite repeated reminders;

c) Stops goods delivery, or part of them, for more than 180 (one hundred and eighty) days, for reason not mentioned in the Supply Contract or not due to the Contractor.

Such cancellation does not compromise any other right the Supply Contract grants the Contracting Authority or the Contractor.

In case of cancellation, the Contracting Authority shall compensate the Contractor for any possible loss or damage he has suffered. Such additional payments must not exceed a maximum fixed in the Supply Contract.

36.2 The Contractor may, after giving 14 days' notice to the Contracting Authority, terminate the contract if the Contracting Authority:

a) fails to pay the Contractor the amounts due under any certificate issued by the Technical Committee after the expiry of the deadline stated in the Special Conditions;

b) consistently fails to meet its obligations after repeated reminders; or

c) suspends the delivery of the supplies, or any part thereof, for more than 180 days, for reasons not specified in the contract or not attributable to the Contractor.

36.3 Termination shall be without prejudice to any other rights or powers under the

contract of the Contracting Authority and the Contractor.

36.4 In the event of such termination, the Contracting Authority shall pay the Contractor for any loss or damage the Contractor may have suffered.

Article 37 Force majeure

37.1 Neither Party shall be considered to be in default or in breach of its obligations under the contract if the performance of such obligations is prevented by any event of force majeure, arising after the date of notification of award or the date when the contract becomes effective, whichever is the earlier.

37.2 For the purposes of this Article, the term "force majeure" means acts of God, strikes, lock-outs or other industrial disturbances, acts of the public enemy, wars whether declared or not, blockades, insurrection, riots, epidemics, landslides, earthquakes, storms, lightning, floods, washouts, civil disturbances, explosions and any other similar unforeseeable events which are beyond the Parties' control and cannot be overcome by due diligence.

37.3 Notwithstanding the provisions of Articles 21 and 35, the Contractor shall not be liable to forfeiture of his performance guarantee, liquidated damages or termination for default if, and to the extent that, his delay in performance or other failure to perform his obligations under the contract is the result of an event of force majeure. Nor, notwithstanding the provisions of Articles 27 and 36, shall the Contracting Authority be liable for the payment of interest on delayed payments, for non-performance or for termination by the Contractor for default if, and to the extent that, the Contracting Authority's delay or other failure to perform its obligations is the result of force majeure.

37.4 If either Party considers that any circumstances of force majeure have occurred which may affect performance of its obligations, it shall promptly notify the other Party, giving details of the nature, the probable duration and the likely effect of the circumstances. Unless otherwise directed by the Contracting Authority in writing, the Contractor shall continue to perform his obligations under the contract as far as is reasonably practicable, and shall employ every reasonable alternative means to perform any obligations that the event of force majeure does not prevent him from performing. The Contractor shall not employ such alternative means unless directed to do so by the Contracting Authority.

37.5 If the Contractor incurs additional costs in complying with the Contracting Authority's directions or using alternative means under Article 37.4, the amount thereof shall be certified by the Contracting Authority.

37.6 If circumstances of force majeure have occurred and continue for a period of 180 days then, notwithstanding any extension of time for completion of the contract that the Contractor may by reason thereof have been granted, either Party shall be entitled to serve the other with 30 days' notice to terminate the contract. If, on the expiry of the period of 30 days, the situation of force majeure still applies, the contract shall be terminated and, by virtue of the law governing the contract, the Parties shall be released from further performance of the contract.

Article 38 Death

38.1 Where the Contractor is a natural person, the contract shall be automatically terminated if that person dies. However, the Contracting Authority shall examine any proposal made by the heirs or beneficiaries if they have notified their wish to continue the contract. The decision of the Contracting Authority shall be notified to those concerned within 30 days of receipt of such proposal.

38.2 Where the Contractor consists of a number of natural persons and one or more of them die, a report shall be agreed between the Parties on the progress of the contract, and the Contracting Authority shall decide whether to terminate or continue the contract in accordance with the undertaking given by the survivors and by the heirs or beneficiaries, as the case may be.

38.3 In the cases provided for in Articles 38.1 and 38.2, persons offering to continue to perform the contract shall notify the Contracting Authority thereof within 15 days of the date of decease.

38.4 Such persons shall be jointly and severally liable for the proper performance of the contract to the same extent as the original Contractor. Continuation of the contract shall be subject to the rules relating to establishment of the guarantee provided for in Article 11.

DISPUTE SETTLEMENT

Article 39 Amicable dispute settlement

The Parties shall make every effort to settle amicably any dispute, which may arise between them. Once a dispute has arisen, the Parties shall notify each other in writing of their positions on the dispute and any solution, which they consider possible. If either Party deems it useful, the Parties shall meet, try, and settle the dispute. A Party shall respond to a request for amicable settlement within 30 days of such a request. The maximum period laid down for reaching such a settlement shall be 120 days from the commencement of the procedure. Should the attempt to reach an amicable settlement fail or a Party fail to respond in time to requests for a settlement, either Party shall be free to proceed to the next stage of the dispute-settlement procedure by notifying the other.

Article 40 Dispute settlement by litigation

If no settlement is reached within 120 days of the start of the amicable dispute-settlement procedure, each Party may seek a ruling from a national court in accordance with the Special Conditions of this contract.

C SPECIAL CONDITIONS الشروط الخاصة

Reference: Supply of electrical laboratory equipment, services and digital learning resources for the ITEC in Fayoum in the frame of the Italian Egyptian Debt for development SWAP program.

Contracting Authority:

Education Development Fund

13 Haroun St. – Dokki – Giza – Egypt

Place of destination:

Demo, Technical Secondary School

Fayoum – Egypt

Table of content:

Article 1 Applicable Law

For all matters not covered by the provisions of the contract, the jurisdiction for any controversy arising from the interpretation or application of this contract is the Egyptian one.

Article 2 Assignment

The Contractor may not assign the contract or any part thereof, or any benefit or interest.

Article 3 Subcontracting

The Contractor may not subcontract any part of the contract.

Article 4 Assistance with local regulation

The Contracting Authority will make every effort possible to help the Contractor obtaining visas and permits required but not the residence permits for their families. In any case the responsibility sits in the hand of the Contractor.

Article 5 General obligations

The Contractor can be in the form an alliance with one or more companies operating in the scope of work of this tender, as per the provision of article 3.4 of the Instructions to Tenderers and 9.5 of the General Conditions.

Article 6 Origin

In case that some items are not available with the origin required in the General Condition, the Contractor can replace with items of different origin.

In such case, the Contractor shall attach a declaration attesting that such items are deemed necessary for the overall supply and are not available with an origin as required, motivating such statement with solid evidences different from mere economic justification.

Article 7 Performance guarantee

The amount of the performance guarantee shall be five percent (5%) of the contract price (inclusive of the Tender Guarantee) including any amounts stipulated in riders to the contract.

The performance guarantee or what remains shall be released within seven (7) days of the issue of the final acceptance certificate.

Such Performance guarantee shall be delivered to the Contracting Authority prior the Supply Contract signature. In case of changes for whatsoever reason in the delivery scheduled, the Supplier commits itself to instruct the Bank to extend the validity of the guarantee and the relevant expiring date.

Article 8 Insurances

The Supplier shall also provide an “All risks” policy for the 110% of the contract value.

Insurance shall be made in the name of the Contracting Authority.

Article 9 Performance programme (time table)

The time limit for delivery is set according to article 1 of Section A-Instructions to Tenderers. The Supplier must provide a project time schedule indicating the delivery and, if required, of the installation of all goods.

Article 10 Supplier's drawings

The Contracting Authority will establish, if considered necessary, a Technical Committee to examine the drawings submitted by the Supplier.

Article 11 Commencement order

The commencement order will be issued within the contract signature.

Article 12 Delays in execution and penalties

For each day of delay, in the delivery on site of the goods as indicated in the agreed time schedule, the Contracting Authority shall apply a penalty equal to 0,03% and up to a maximum of 10% of the contract price and up to a 30 days of delay.

Delays in execution exceeding 30 days, may result in breach of the contract, in accordance to Articles 34 and 35 of the General Conditions.

Article 13 Alterations

13.1 The contract may only be modified in the following cases:

a) modifications of applicable laws and regulations;

b) unforeseen and unforeseeable circumstances, including the implementation of new materials, components or technology not existing when the award procedure was commenced, provided that the modifications may only ameliorate the quality of the performance, without increasing the contract total amount and without quality of other goods inside the Supply;

c) events related to the nature or the quality of the goods or places where the contract activities take place, which occur during the contract execution and were unforeseeable when the contract was made;

d) when the need arises, the Contracting Authority has the right to increase or decrease the quantity of the requested items per lot within the limit of twenty-five per cent (25%) of total items per lot with the same price and quality provided in

the tender.

13.2 Contractors cannot refuse the above-mentioned modifications and the Contracting Authority has the right to be such modifications executed at the same contractual conditions;

13.3 Contractors shall execute any non-substantial modification that the Contracting Authority may see fit, provided that the nature of the activity is not fundamentally altered and no additional costs are imposed.

Article 14 Inspection and testing

The Inspections and Monitoring activities will be carried out by the Contracting Authority as follows:

Quantity and quality inspections of the supply, inspection of the palling and packing, certifications concerning shipping at the Supplier's factory, loading and discharging port.

For the above-mentioned operations will be issued the following certificates by the Contracting Authority:

- Certificate of Conformity at loading;
- Certificate of Discharge;
- Certificate of Conformity at final destination and of delivery.

Article 15 Payments procedures

Payments shall be made by means of irrevocable confirmed Letters of Credit, in currency EGP, to be issued by an Egyptian Bank through the Agent Bank indicated by the Contractor, within thirty (30) days from the receiving date of the Contract from the Contracting Authority according to the following terms and conditions.

An Advance Payment for an amount up to 25% of the contract price may be recognised against the following documents:

- Advance Payment Guarantee (as per Annex IV only issued by a first bank and not by an insurance company nor by a minor bank) for the same amount in favour of Contracting Authority. Such guarantee shall be released within 45 (forty-five) days from the date of the "Certificate of Conformity at final destination and of delivery" issued by the Contracting Authority. In case of failure in issuing the "Certificate of Conformity at final destination and of delivery", the Contracting Authority shall have the right to have extended the advance payment guarantee for a period of minimum six months to allow the provider to remedy. In case such request is not fulfilled by the Provider, passed 30 additional days from the date of such request, the Person in Charge shall have the right to ask the Guarantor Bank to pay on behalf of the Provider the amount requested. In this last circumstance the Contracting Authority shall have the right to decide to wait for a new Advance Payment Guarantee from the same provider or to claim the rightful withdraw from the contract and proceed by contracting a new Tenderer according to the scoring list or launching a new Tender. It is understood that the Advance Payment Guarantee shall remain valid for a period

of at least 90 days after delivery.

- Certificate of full receipt of the above mentioned sum signed by the Supplier
- Pro-forma invoice in 5 (five) copies.

A payment equal to 65% of the contract value which, including the above mentioned advance payment, covering up to 90% of the contract value, will be recognised against the following documents:

- Certificate of full receipt of the above mentioned sum signed by the Contractor;
- All risk insurance Policy / Certificate for the agreed Incoterm Clause according to what requested and indicated in the Special Conditions.
- Commercial Invoice in five (5) copies issued by the Supplier
- Packing list in five (5) copies
- Certificate of Origin issued by the local Chamber of Commerce certifying the origin of the commodities
- Supplier declaration of liability stating the origin of the commodities;
- 2/3 of Bill of Lading issued to the order and blank endorsed clean on board - “Freight Prepaid”.

The residual value equal to 10% of the total amount of the supply contract shall be paid upon presentation of the “Certificate of Final Testing” of the supply, issued and signed by the Contracting Authority, after the expiring of the Warranty Period.

Alternatively, the residual value equal to 10% of the total amount of the supply may be paid to the Supplier after 45 days from the date of the “Certificate of Conformity at final destination and of delivery” issued by the Technical Committee and against presentation of the following documents:

- Certificate of full receipt of the above mentioned sum signed by the Supplier;
- Retention Money Guarantee (as per Annex VI) for the same amount in favour of the Contracting Authority.

The 10% Retention Money Guarantee will be released upon presentation of the “Certificate of Final Testing”, issued and signed by the Contracting Authority, after the expiring of the Warranty Period.

In case the “Certificate of Final Testing” is not issued for reasons not due to the Contractor, the Retention Money Bond shall be considered implicitly released after a number of days from the date of Certificate of Conformity at final destination and of delivery (calculated as follows: date of Certificate of Conformity at Final Destination and of Delivery + 730 warranty days + 90 days for the issuing of Certificate of Final Testing + 90 banking days) and after proper notice to the Contracting Authority.

All Bank commissions and fees charged outside the Egyptian boundaries shall be borne by the Contractor.

The expiring date of validity of the letter of credit shall consent the Contractor to be able

to present all documents for the payment of the balance.

Article 16 Packaging for delivery

16.1 The Supplier shall bear all risks concerning the goods until provisional acceptance at destination according to the IncoTerms clause agreed in this contract. The supplies shall be packaged so as to prevent their damage or deterioration in transit to their destination.

16.2 The packaging shall become the property of the recipient subject to respect for the environment.

16.3 Sticker with the Logo of the Donor dim 12x9 cm must be placed on each of the equipment described in Article 1.1 of the Instructions to the Tenderers.

The colours are precisely defined with RGB palette:

	R	G	B
Green	0	128	1
White	255	255	255
Red	255	0	1

The Supplier shall mail to the Contracting Authority, with a copy to the Insurance Company, all the documents necessary to the delivery of the goods (the list of these documents will be defined at the moment of the contract signature).

Article 17 Verification operations

Training in Egypt: The Supplier will organize, at his own total cost, a week training course in Egypt, in the location of the destination, on the use and general maintenance of the commodities provided.

Article 18 Provisional Acceptance

18.1. A “Certificate of Conformity at final destination and of delivery” shall be issued by the Contracting Authority upon correct delivery of the supply, at final destination according to the Incoterm clause agreed;

18.2. Starting from the date of such “Certificate of Conformity at final destination and of delivery”, the commodities shall be considered delivered to the Contracting Authority, which will be responsible of its good care.

18.3. The Supplier, at the Contracting Authority premises, will test the supply, at the presence of the qualified personnel appointed by the Contracting Authority. The Contracting Authority, after checking the correct performance of the goods as specified in the tender terms, will issue the "Certificate of Provisional Acceptance". Starting from the date of such Certificate, the Warranty Period of 36 months will start.

Article 19 Warranty

19.1. The supplies must have a full technical warranty for a period of 36 (thirty-six)

months from the date of the “Certificate of Provisional Acceptance” issued by the Contracting Authority.

19.2. The Supplier shall warrant that the supplies are new, unused, of the most recent models and incorporate all recent improvements in design and materials. The Supplier shall further warrant that all commodities have no defects arising from design, materials or manufactory.

Article 20 After-sales service

20.1 The Tenderer, if he does not already have one, shall appoint a local Agent and Service Centre in Egypt for post-sale assistance and availability of consumables, spare parts/materials and will provide their name and address, informing also about:

- Their experience, organization and reliability to carry out the post-sale assistance
- Post-sale assistance’s intervention time;
- Spare part’s availability time.

20.2 If a local Agent, or Service Centre in Egypt in charge of the after-sales and maintenance service does not provide its services, by the deadline established in the Technical Specifications, the Contracting Authority shall be entitled to claim a delay charge. In such circumstance the Contracting Authority shall be entitled to charge and deduct for every day of delay, the 0.001% of the contract price up to a 5% of the same contract price.

20.3 The amount corresponding of the total delays will be deducted from the Performance Guarantee.

Article 21 Final Acceptance

After 36 months of warranty period starting from the “Certificate Provisional Acceptance” date, without reserve about the Supplier’s performance made from the Contracting Authority, the commodities will be finally accepted and the retention Money Bond released. In order to proceed as above mentioned, a “Certificate of Final Testing”, stating the date when the Supplier has fulfilled his supply-contract’s obligations, shall be issued and signed by the Contracting Authority and signed for confirmation by the Contracting Authority, within 90 (ninety) days from the date of expiry of the 36 months warranty period (see clause no. 31 of the General Conditions);

Article 22 Amicable settlement of disputes

The contracting parties shall make every effort to settle amicably any dispute, which may arise between them (as per Article 39 of the General Conditions).

If an agreement is not reached within 120 days of the start of the amicable dispute-settlement procedure, all disputes shall be finally settled in accordance to Article 40 of the General Conditions.

Article 23 Dispute settlement by legal action

If no settlement is reached within 120 days from the moment the amicable-dispute-settlement procedure has started, each Party may seek a ruling from the Egyptian court in accordance with the Egyptian Legislation. After signing the Contract, the international law may be applicable during the shipment. Arbitration ruling is excluded.

D SUPPLY CONTRACT MODEL نموذج عقد التوريد

Reference: Supply of electrical laboratory equipment, services and digital learning resources for the ITEC in Fayoum in the frame of the Italian Egyptian Debt for development SWAP program.

SUPPLY CONTRACT NO.

BETWEEN

THE CONTRACTING AUTHORITY:

The Education Development Fund, 13 Haroun St. – Dokki – Giza – Egypt – Represented by the Secretary- General ….., hereinafter referred to as "**EDF"**

AND

THE CONTRACTOR:

..... hereinafter referred to as the "**Contractor**".

have agreed as follows

Article 1: PURPOSE OF THE CONTRACT

1.1 The supply DDP (as per Incoterms 2010 - Annex IX) Destination: Demo Technical Institute, Fayoum Governorate, Egypt:

- List of Commodities as per Annex II, to be provided according to the Technical Specifications detailed in Section E;
- Packing;
- Transport from ex work to port of embarking;
- Sea freight to the selected sea Port, handling loading and unloading;
- The seller bears the costs and risks associated with the import clearance, unloading and subsequent delivery beyond the place of final destination;
- All risk insurance policy for the 110% of the contract value;
- Warranty for 36 months;
- Assembling and training course in Egypt;

as listed by the Contractor into the Pro-forma Invoice no. dated . with annexes; all herewith enclosed and to be considered integral part of this contract (and it will be Annex no. X).

1.2 The Contractor hereby undertakes that the supply and the conditions of supply described into the Pro-forma Invoice no. dated and annexes, are absolutely the same as specified into the technical offer no. and financial offer no. dated and indicated in the Letter of Award protocol no. dated .

ARTICLE 2: PERFORMANCE GUARANTEE

2.1 The Supplier shall issue a Performance Guarantee (as per Annex III) in favour of the Purchaser, according to the provisions of the Tender's documents, delivered to the Person in Charge together with the Contract duly signed for acceptance not later than 20 days from the date of receipt of its date. The Supplier commits himself to instruct the Bank to extend the validity of the guarantee and the relevant expiry date in case of changes for whatsoever reason in the delivery schedule.

2.2 The Performance Guarantee is kept to reimburse the Purchaser for any damage caused by the fact that the Supplier has not completely and properly fulfilled his obligations as laid down the Contract.

2.3 The Performance Guarantee or what's left of it shall be released within 7 days from the date of the final acceptance by the Contracting Authority. It will become automatically null and void after 30 (thirty) days from the date of the "Certificate of Conformity at final destination and of delivery" issued by the Control and Surveillance Company.

ARTICLE 3: PRICE OF THE CONTRACT

The total price of the supply delivered (as per Incoterms 2010 – (Annex IX) with destination: is of EGP (EGP only). The price of the supplies shall be the same shown on the financial offer (specified in Annex II) and shall be the sole remuneration owed by the Contracting Authority to the Supplier under the contract. It shall be firm and not subject of any revision.

The Contractor undertakes that the above-mentioned prices are fixed and cannot vary for the entire period of the Contract.

Any taxes, custom duties and expenses relevant to the importation of goods into the Arab Republic of Egypt, including commission to be paid to the Egyptian Bank for the issue of the letters of credit as per next Article 4 are at the Contracting Authority charge.

ARTICLE 4: PAYMENT CONDITIONS

Payments shall be made in accordance with the Special and General Conditions.

Payments shall be made by means of irrevocable and confirmed Letter of Credit, which currency shall be EGP and issued by an Egyptian Bank as Agent Bank within 30 days from the date of receiving of the Contract from the Contracting Authority according to the following terms and conditions:

The contract is made up of the following documents, listed according to precedence:

- this Contract agreement;

- the Instructions to Tenderers (as per Section A);
- the Special Conditions (as per Section C), including the technical annex (Section E: Technical Specifications) [including clarifications before the deadline for submission of tenders];
- the Contractor's tender, including annexes;
- the Price List (as per Annex II);
- the General Conditions (as per Section B);

The different documents making up the contract shall be deemed to be mutually explanatory; in case of ambiguity or divergence, they should be read in the order in which they appear above.

For all matters not covered by the above provisions, reference shall be made to the Egyptian Law.

ARTICLE 5: COMING INTO FORCE

The coming into force of the contract is subject to the fulfilment of the following conditions:

a) Issuing and validity of the Performance Guarantee as per Article 2

b) Issuing of a Letter of Credit by the Egyptian Bank in favour of the Agent Bank.

The official date of entering into force of the contract will be the date of notification of the letter of Credit by the Agent Bank to the Contractor’s bank.

ARTICLE 7: CARRIERS -TRANSPORT

Transport may be carried out combined by sea, railway and road. To be noticed that the ship used to transport to Egypt the goods object of this Supply Contract must be Italian or Egyptian, namely, must fly Italian or Egyptian flag only.

ARTICLE 8: ACCEPTANCE AND TAKING OVER OF THE GOODS

8.1. The commodities are delivered and, therefore, at the date of the issuing of the “Certificate of Conformity at final destination and of delivery” by the Contracting Authority.

8.2. Starting from the date of the Certificate of Conformity at final destination and of delivery, the warranty period of 36 months will start.

ARTICLE 9: MONITORING AND INSPECTIONS

The inspections and monitoring activities will be carried out by the Contracting Authority as follows:

9.1 Quantity and quality inspection of the commodities, i.e. verification of the number of pallets, inspection of the packing, certification concerning shipping at the Contractor’s factory, loading and discharging port.

9.2 For the operations mentioned in this article, point 9.1, the following certificates shall

be issued from the Technical Committee:

- Certificate of Conformity at loading;
- Certificate of Discharge;
- Certificate of Conformity at final destination and of delivery.

The Inspection and Monitoring activities, as per Financial Protocol will be carried out by the Contracting Authority

ARTICLE 10: ARBITRATION

Arbitration ruling is excluded and any dispute arising from the performance, or/and interpretation, and/or execution of this contract, shall be settled through the Egyptian courts.

ARTICLE 11: LAW and JURISDICTION

The Egyptian law is governing this contract. The jurisdiction for any controversy arising from the interpretation or application of this contract is the Egyptian one.

The contract shall be automatically terminated without prior notice if the contractors are the subject of proceedings for a declaration of bankruptcy, for winding-up, for administration by the courts, for an arrangement with creditors or for any similar procedure provided for in national legislation or regulations.

ARTICLE 12: CORRESPONDENCE

Any written communication relating to this Contract between the Contracting Authority and the Contractor shall be in Arabic and/or English and shall state the Contract title and identification number.

ARTICLE 13: AMICABLE SETTLEMENT OF DISPUTES

The contracting parties shall make every effort to settle amicably any dispute which may arise between them. The procedures applicable are set out in the Special and General Conditions.

ARTICLE 14: DELIVERY

The delivery period shall run from the date of the Contract effectiveness.

ARTICLE 15: SUPPLIER'S BANK ACCOUNT

The bank account of the Supplier into which payments shall be made is:

Account number:

Account name:

Bank name & address:

Corresponding bank (if any):

Written in English in eight originals of equal legitimacy and value,

THE CONTRACTOR:

The legal Representative:

Place: , Date: ..... signature: _____

THE CONTRACTING AUTHORITY:

The Education Development Fund, 13 Haroun St. – Dokki – Giza – Egypt – Represented by the Secretary General …..

Place: , Date: ..... signature: _____

E Technical Specifications المواصفات الفنية

- Lot 1: language lab
- Lot 2: CAD CAE lab
- Lot 3: chemistry lab
- Lot 4: electrical residential installations
- Lot 5: electrical installation materials
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ITEM	Qty.	1 DESCRIPTION AND REQUIREMENTS:

Lot 1
LANGUAGE LAB

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- Dimensions of the Language Laboratory are about 11m(w) x 5,25m(l) (layout can be requested to the contracting authority).
- **Computers for teacher (see Annex A) and students (see Annex B) and intelligent board will be provided by the Contracting Authority**

General Requirements:

- The items of this lot should be delivered installed, connect in a network and functionally operational in the Language Laboratory
- Manuals, guidelines, technical documentation, demos and tutorials:
  - in digital format (CD or DVD)
  - SO: OSX and/or Linux and/or Windows
  - in English and/or Italian and/or Arabic
  - in three copies
- 4 hours demo to teachers demonstrating most of the functionalities of the equipment

1.1	Qty.	FURNITURES
1.1.1	24	**Students Language Laboratory furniture** Language laboratory single desks with separators (panels or boxes) to allow increased privacy and separation of students. *Minimum Requirements:* • Dimensions about: Height 85 cm, width 60 cm • Strong and secure construction • Rounded corners for added safety
1.2	**Qty.**	**HARDWARE**
1.2.1	1	**Teacher Language Laboratory Auxiliary Equipment** Auxiliary teachers equipment to support students during classes. *Minimum Requirements:* • Audio quality professional handset with unidirectional dynamic microphone • External speakers for teacher's desk
1.2.2	1	**Class Satellite TV** Satellite receiver to record and display Italian and English national programmes on the smartboard and a TV set. *Minimum Requirements:* • Satellite dish 1500mm • Decoder with 2 smart card slots, 2 USBs, • Digital recorder 500Gb with CD/DVD recorder, 2 USB • Smart TV LED, 42" / 107 cm, Panel resolution: 1920x1080p, Aspect ratio: 16:9, Digital TV: DVB-C MPEG2*, DVB-C MPEG4*, DVB-T MPEG2*, DVB-T MPEG4*, Video Playback: NTSC, PAL, SECAM, HDMI connections: 3, Component in (YPbPr): 1, Scarts (RGB/CVBS): 1, AV connections: 1, USBs: 2, Wireless LAN ready
1.2.3	24	**Students Language Laboratory Equipment** Equipment to be connected to the PC (Lot 2) and other auxiliary equipment necessary to realise a modern language laboratory. *Minimum Requirements:* • Audio quality professional handset with unidirectional dynamic microphone
1.3	**Qty.**	**SOFTWARE**
1.3.1	1	**Language Lab Management License** Computer Assisted Language Laboratory (CALL) and Web Assisted Language Laboratories (WALL) applications for a class up to 24 students. *Minimum Requirements:* Basic Admin Software with:

		• Quiz\test module • 5 audio-video group managing (from PAL, DVD, tapes, files, etc.) • Up to 16 Audio group - Pairing. • Management of all Classroom AAC, File Manager, Group Chat • Control software for Internet Access of students • Teach Protect • CALL icon for the request of support
1.3.2	**1**	**Arabic as a foreign language** Student license for learning Arabic language as a foreign language *Minimum Requirements:* • Extensive tutorial in English and Italian • Programme covering levels from A1 to C1 of CEFR • Programme adopting Content and language integrated learning (CLIL) on electrical and mechanical subjects are preferred
1.3.3	**1**	**English as a foreign language** Student license for learning Arabic language as a foreign language *Minimum Requirements:* • Extensive tutorials in Arabic and Italian • Programme covering levels from A1 to C1 of CEFR • Programme adopting Content and language integrated learning (CLIL) on electrical and mechanical subjects are preferred
1.3.4	**1**	**Italian as a foreign language** Student license for Learning Italian language as a foreign language *Minimum Requirements:* • Extensive tutorial in Arabic and English • Programme covering levels from A1 to C1 of CEFR • Programme adopting Content and language integrated learning (CLIL) on electrical and mechanical subjects are preferred

ITEM	Qty.	2 DESCRIPTION AND REQUIREMENTS:

Lot 2
2 – CAD/CAE LAB

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- Dimensions of the CAD/CAE Laboratory are about 11m(w) x 5,25m(l) (layout can be requested to the contracting authority).
- **Computers for teacher (see Annex A) and students (see Annex B) and intelligent board will be provided by the Contracting Authority**

General Requirements:

- The items of this lot should be delivered installed, connect in a network and functionally operational in the CAD/CAE Laboratory
- Manuals, guidelines, technical documentation, demos and tutorials:
  - in digital format (CD or DVD)
  - SO: OSX and/or Linux and/or Windows
  - in English and/or Italian and/or Arabic
  - in three copies
- 8 hours demo to teachers demonstrating most of the functionalities of the equipment

2.1	Qty.	HARDWARE
2.1.1	1	**Network Colour Laser Printer A3** *Minimum Requirements:* • Loading tray for A4 & A3 • Print speed black: 16ppm (A4) • Print speed colour: 16ppm (A4) • Print quality black and colour: 600x600dpi • Monthly page volume: 4000 pages • Duty cycle (monthly, A4): 50000 pages • Printer languages: PCL, PostScript • OS: Microsoft Windows® and Mac OS X
2.1.2	1	**Consumables for 2 years** For the network colour laser printer 2.1.1 *Minimum Requirements:* • Black cartridges and drum for printing 10.000 pages in normal quality • Colour cartridges and drum for printing 10.000 pages in normal quality
2.1.3	1	**Network Colour Plotter A0** Plotter with paper cutter included *Minimum Requirements:* • Print resolution black: 1200x1200dpi • Print resolution colour: 1200x1200dpi • Ink cartridge: 4 • Printer languages: HP-GL, HP-PCL • OS: Microsoft Windows® and Mac OS X
2.1.4	1	**Consumables for 2 years** For the network colour plotter 2.1.3 *Minimum Requirements:* • Cartridges for printing 300 m of paper of normal quality • 3 rolls 50m paper
2.1.5	1	**Flatbed Scanner A3** *Minimum Requirements:* • Optical resolution: 1200dpi • Colour depth: 24bit • Black and white depth: 16bit • Bundled software: text recognition and image retouching • OS: Microsoft Windows® and Mac OS X
2.2	Qty.	SOFTWARE

2.2.1	**1**	**Set of Multi-license Electrical/Electronic CAD/CAE for 1 teacher and 24 students** Software for controls designers, to create and modify electrical control drawing/systems *Minimum Requirements:* • comprehensive symbol libraries ISO/IEC/CEI • automated tasks to speed up the designing process • import and export drawing from other suites • facilitate collaboration • configurability
2.2.2	**1**	**Set of Multi-license Mechanical CAD/CAE for 1 teacher and 24 students** Software for controls designers, to create and modify electrical control drawing/systems *Minimum Requirements:* • comprehensive symbol libraries ISO/IEC/CEI • automated tasks to speed up the designing process • import and export drawing from other suites • facilitate collaboration • configurability

ITEM	Qty.	3 DESCRIPTION AND REQUIREMENTS:

Lot 3
CHEMISTRY LAB

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- Dimensions of the Physics and Chemistry Lab are about 14,5m(w) x 13,5m(l) and two preparatory rooms of 7,0m(w) x 6,5m(l) (layout can be requested to the contracting authority).
- **Computer for the teacher and intelligent board will be provided by the Contracting Authority (see Annex A)**

General Requirements:

- The items of this lot should be delivered installed, connect to required utilities (water, sewage, electricity, gas) and functionally operational in the Chemistry Laboratory
- Manuals, guidelines, technical documentation, demos and tutorials:
  - in digital format (CD or DVD)
  - SO: OSX and/or Linux and/or Windows
  - in English and/or Italian and/or Arabic
  - in three copies
- 4 hours demo to teachers demonstrating most of the functionalities of the equipment

3.1	Qty.	FURNITURES for CHEMISTRY LABORATORY
3.1.1	6	**Special desk for chemistry experiments:** The student desk should accommodate four students working at the same time ensuring comfortable and safe activities. *Minimum Requirements:* • Dimension of about 250Wx100Lx90H cm • Underneath storage space with lockable sliding doors • Heavy duty and of strong and secure construction • Very rigid structure in metal tubular profile • Top made of highly compressed, multi-layer fine chipboard and resistant to scratches and to chemicals • Integrated cup sink (stainless steel/ceramic/epoxy resin) • Self-supporting fume extractor arm for chemical application • Integrated taps and control valves for all utilities • Equipped for fume extraction connected to a central fume extraction system • Proper ventilation for the fume hoods and general lab areas
3.1.2	24	**Laboratory stool for Students** Ergonomic and comfortable laboratory stool *Minimum Requirements:* • Rigid (without rotation, wheels and adjustable elements) • Heavy duty: strong and secure construction
3.1.3	2	**Double door chemical reaction unit** Unit to be used to implement reactions producing vapours or thermal reactions *Minimum Requirements:* • Dimension about: 180Hx60Lx95W cm • Heavy duty and of strong and secure construction • Resistant to fire and chemicals • Lockable • Equipped for fume extraction connected to a central fume extraction system
3.1.4	1	**Central fume extraction system for chemistry lab** All the extractor arms integrated on the special desk for chemistry (item 3.1.1) and the double door ventilated chemical storage units (item 3.1.3) should be connected to the central fume extraction system *Minimum Requirements:* • Maximum noise level as required by International Standards • Maximum face velocity as required by International Standards • Dimensions as required by the layout of the Lab proposed by the bidder • Filters as required by chemical substances provided by the bidder

3.1.5	**2**	**Double door storage unit fire resistant** Double door storage unit for dangerous chemicals *Minimum Requirements:* • Dimension about: 180Hx60Wx95L cm • Lockable • Heavy duty type • Tempered transparent glass doors (safety glasses)
3.1.6	**4**	**Double door storage unit** Double door storage unit of experimental kits *Minimum Requirements:* • Dimension about: 180Hx60Wx95L cm • Lockable • Heavy duty type • Tempered transparent glass doors (safety glasses)
3.2	**Qty.**	**KITS for PRACTICAL EXERCISE in CHEMISTRY** *General Requirements: for each kit* 1. Box with equipment to carry out the practical exercises 2. Box with materials and components (consumable) to carry out a minimum of 30 times the practical exercises of the kit 3. List of practical exercises (title and description) that can be carried out 4. Documentation in Arabic and/or Italian and/or English for each practical exercise - Safety recommendations during the preparation, execution and closure of practical exercises - Student practical guide with self-evaluation for each practical exercise - Teacher support guide with evaluation sheet for each practical exercise - Teaching support documentation including simulations and models - Teaching support software to be used on smart-boards with projector
3.2.1	**12**	**Education Kit for Inorganic Chemistry** *Minimum Requirements:* Carry out not less than 50% of the following examples of practical exercises: • Basic methods/separation processes • Air, gases and their properties • Acids, bases and salts • Metals and non-metals • Chemical activity and reactions • Crystallization from aqueous solutions • Acid, base titration • Chemical analysis of environmental water
3.2.2	**12**	**Education Kit for Physical Chemistry** *Minimum Requirements:* Carry out not less than 50% of the following examples of practical exercises: • Electrochemical processes • Particle motion and energy • Water dissociation • Conductivity in liquids
3.2.3	**6**	**Education Kit for Chemistry of Soap and Detergents** *Minimum Requirements:* Carry out not less than 50% of the following examples of practical exercises: • Surface tension and surfactants • Hydrophobic and hydrophilic effects • Washing and cleaning effects • Washing agents and environment
3.2.4	**3**	**Education Kit for Lubricant** *Minimum Requirements:* Carry out not less than 50% of the following examples of practical exercises: • Friction • Fluid lubricant • Viscosity and viscosity index • Lubricants flow and properties

3.2.5	**3**	**Education Kit for data acquisition system** *Minimum Requirements:* Carry out not less than 50% of the following examples of practical exercises: • acquisition and display of voltage, current • acquisition and display of temperature • acquisition and display of gas pressure • acquisition and display of conductivity • acquisition and display of redox potential • acquisition and display of pH • acquisition and display of carbon dioxide concentration • acquisition and display of oxygen concentration in a gas • acquisition and display of concentration of solutions
3.3	**Qty.**	**DIGITAL LEARNING RESOURCES for CHEMISTRY LAB** Digital resources for Chemistry Lab in technical and professional schools (students age 15-18) as a supporting learning tool of the Kit for practical exercises (such as the simulation of the exercises, supporting videos, etc) *General Requirements:* • List of digital resources (title and description) • Operating according a 2.0 educational scheme that includes presentation using interactive whiteboards, theory, simulations, exercises and self-evaluation tests • Documentation in Arabic and/or Italian and/or English: - Student practical guide with self-evaluation - Teacher support guide with evaluation sheet - Teaching support documentation including simulations and models - Teaching support software to be used on smart-boards with projector
3.3.1	**1**	**Chemistry Digital Learning Resources** Set of 1 teacher and 24 students *Minimum Requirements:* Carry out not less than 50% of the following subjects: • Inorganic and organic chemistry • Analytical chemistry • Physical chemistry • Chemical processes
3.3.2	**1**	**Data display application** Set of 1 teacher and 24 students *Minimum Requirements:* Carry out not less than 50% of the following subjects: • Display on time base data acquired via sensors and data loggers • Produce plots and charts in real time with data acquired via sensors and data loggers • Produce historical charts with data acquired via sensors and data loggers • Produce charts correlating different data acquired via sensors and data loggers

ITEM	Qty.	4 DESCRIPTION AND REQUIREMENTS:

Lot 4
ELECTRICAL RESIDENTIAL INSTALLATIONS

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- Dimensions of the Electrical Domestic Installation Workshop are about 12m (w) x 11,5m (l) (layout can be requested to the contracting authority).
- **Computer for the teacher and intelligent board will be provided by the Contracting Authority (see Annex A)**

General Requirements:

- The items of this lot should be delivered installed, connect to required utilities (water, sewage, electricity, gas) and functionally operational in the Electrical Domestic Installation Workshop
- Manuals, guidelines, technical documentation, demos and tutorials:
  - in digital format (CD or DVD)
  - SO: OSX and/or Linux and/or Windows
  - in English and/or Italian and/or Arabic
  - in three copies
- 4 hours demo to teachers demonstrating most of the functionalities of the equipment

4.1	Qty.	Student vertical workbench
4.1.1	12	**Student vertical workbench** The unit should be the support, the infrastructure to develop a set of practical exercises referred to the following subjects: • practical exercises for assembly, wiring and testing of protection electrical installations. • Practical exercises for assembly, wiring and testing electrical domestic installations • practical exercises for assembly, wiring and testing of lighting electrical installations. • practical exercises for wiring and testing of anti-theft electrical (should include the related electronics devices) installations. • practical exercises for wiring and testing of video-intercom and basics on telephony electrical installations. • practical exercises for wiring and testing of fire-gas-smokes fighting electrical installations. *Technical requirements - Structure:* • to be built in structural steel and welded sheet steel. • the work plane will be made of strong chipboard covered with plastic laminate. • the upright frame will support vertical interchangeable panels • should accommodate on the same side two students working at the same time ensuring comfortable and safe operations. • with No. 2 metal drawers (key locked) per position (total= 4 drawers per bench) • the student workbench can be positioned against a wall *Technical requirements - Electrical:* • 1 AC main line 3 x 230 or 3 x 400 V 16 A and 230 V single-phase line 16 A with MCB, RCB (30 mA sensitivity) and 4 mm. safety terminals. This main line should include: EPB (Emergency Push Button), with mechanical lock and ¼ turn to unlock, key switch and min voltage coil protection. • 1 AC low voltage line 12-24 V - 4 A single-phase line, overload and short-circuit protection. • 1 DC voltage line: -12/0/+12 VDC / 2 A • Operating and maintenance manuals *Technical requirements – TRMS Digital multimeter:* • 22000 counts

		• Auto/Manual Ranging • 46 segments analogue bar • True RMS measures • DC voltage: 220 mV to 1000 V; AC Voltage: 220 mV to 750 V • DC Current: 220 microA to 10 A; AC Current: 220 microA to 10 A; Fuse protection. • Resistance: 220 ohm to 220 Mohm, 7 ranges. • Capacitance: 25 nF to 220 mF • Frequency: 10 Hz to 220 MHz • Special Functions: diode test, Continuity, Temperature, Duty Cycle (%), Transistor (hFE) test, Data Hold, Peak Hold, RS-232C.
4.1.2	**24**	**Stool for Students** Ergonomic and comfortable stool without arms and according to the height of the benches *Technical requirements:* Rigid (without rotation, wheels and adjustable elements) Heavy duty: strong and secure construction
4.1.3	**6**	**Sliding door storage unit** Sliding door storage unit of coordinated design with the workbench to accommodate about 12 panels with practical exercises under completion *Technical Requirements:* Dimension about: 180Hx60Wx95L cm Lockable Heavy duty type Sliding door
4.2	**Qty.**	**KITS FOR PRACTICAL EXERCISE** *General Requirements: for each kit* • Box with equipment to carry out the practical exercises • vertical interchangeable panel • Commercial datasheet for each component and material included in the box • List of practical exercises (title and description) that can be carried out with the kit • Documentation in Arabic and/or Italian and/or English for each practical exercise including: - Safety recommendations during the preparation and execution of practical exercises - Student practical guide with self-evaluation for each practical exercise - Teacher support guide with evaluation sheet for each practical exercise - Teaching support documentation including simulations and models - Teaching support software to be used on smart-boards with projector - Commercial and technical documentation (different brands, suppliers) of the components and materials included in the kit
4.2.1	**12**	**Electrical protective measures kit** *Technical Requirements: practical exercises* Carry out not less than 50% of the following examples of practical exercises: - the RCB: types and applications - the thermomagnetic switches: types and applications - fuses: types and applications - overvoltage protection devices - Energy counter installation - contact voltage in different situations *Technical Requirements: experimental panel* - painted steel experimental panel with hinges, to be installed vertically in the students workbench. - equipped with rectangular holes for electrical embedded boxes, hole for the main box of a house modular units, hole for 8 modular units, derivations boxes required for the practical exercises - rear part of the panel components connected with plastic tubes - support plates and covers and all the required accessories for a complete and perfect installation of all the components in the panel above described. *Technical Requirements: components to be installed on the panel*

		- 2 bipolar RCB, Idn =30 mA, A and AC types; - 1 bipolar RCB 25A/0.3 A, AC class, - 3 bipolar thermomagnetic switches, curve C, 6-10 and 16 A, - 1 complete fuse-holder + fuses 10 A, - 1 single-ph energy counter, 40 A, able to visualize active, reactive energies, Power Factor, voltage, current, service-hours and active power
4.2.2	**12**	**Electrical installation kit** <u>*Technical Requirements: practical exercises*</u> Carry out not less than 50% of the following examples of practical exercises: - Select cables for residential installations - Connect a flexible cable to fixed point - Connect two flexible cables - Select and install sockets for electrical appliances - Install sockets with protection mechanism - Install security socket and plug - Select and install plugs and sockets protected against accidental contacts - Select and install plugs and sockets protected against ingress of water - Install 220/200-110 socket with isolating transformer <u>*Technical Requirements: experimental panel*</u> - painted steel experimental panel with hinges, to be installed vertically in the students workbench. - equipped with 10 or more rectangular holes for electrical embedded boxes, derivations boxes required for the practical exercises - rear part of the panel components connected with plastic tubes - support plates and covers and all the required accessories for a complete and perfect installation of all the components in the panel above described. <u>*Technical Requirements: components to be installed on the panel*</u> - 1 socket 3 phases + ground 16 A (CEE 3P+T 16A 400Va.c.) - 1 socket 10 A, 16 A, Schuko, single phase + ground (2P+T) - 2 sockets 10 A single phases + ground (Schuko) - 1 sockets 10 A single phases + ground with child security - 1 sockets 10 A single phases + ground with minimum protection IP54 - 1 socket 220 / 200-110 with isolating transformer
4.2.3	**12**	**Lighting installation kit** <u>*Technical Requirements: practical exercises*</u> Carry out not less than 50% of the following examples of practical exercises: - Connect a lamp controlled by a switch - Connect two lamps controlled by a changeover switch - Connect a lamp controlled from two points - Connect a group of lamps controlled from two points + 1 socket - Connect a lamp controlled from 3 points - Assemble a system with 2 socket and a group of lamps controlled from 4 points - Connect a switch controlling a socket - Connect lamps controlled from various points by relay - Connect a group of lamps controlled from various points by switch relay - Connect a timed lighting of stairwell - Connect a lamp controlled by a motion sensor - Connect a lamp controlled by a light sensor - Assemble and connect a fluorescent lamp - Assemble and connect a lamp-holder for low voltage DC lamps <u>*Technical Requirements: experimental panel*</u> - painted steel experimental panel with hinges, to be installed in the STUDENT VERTICAL PANEL. The size should be fully compatible with the vertical working positions of the a.m. unit. - Equipped with 10 or more rectangular holes for electrical embedded boxes, derivations boxes required for the practical exercises - rear part of the panel components connected with plastic tubes

		- support plates and covers and all the required accessories for a complete and perfect installation of all the components in the panel above described. *Technical Requirements: components to be installed on the panel* - 2 switches single phase - 4 switches two phases - lamp holder (Philips) - lamp holder halogen lamp - lamp holder low voltage halogen lamp - one way switches - two way switches - reversing switches - switch with motion sensor (passive infrared) - switch with light sensor, possibility of exclusion, timing circuit for adjustable off delay (ex: from 30 seconds to 10 minutes)
4.2.4	**6**	**Anti-theft control kit** *Technical Requirements: practical exercises* Carry out not less than 50% of the following examples of practical exercises: - anti-theft circuits topology. - performance levels of the anti-theft systems. - Installation, set up and fault identification of sensors specifically used in anti-theft systems: (IR + microwave) technology presence sensor, - Installation, set up and fault identification of sensors specifically used in anti-theft systems: passive infrared presence (IR) sensor, - Installation, set up and fault detection of sensors specifically used in anti-theft systems: magnetic detector, - Installation, set up and fault detection of sensors specifically used in anti-theft systems: vibration detector. - Installation, set up and fault detection of actuators specifically used in anti-theft systems: indoor and outdoor sirens. - Installation, set up and fault detection of actuators specifically used in anti-theft systems: Self- powered sirens. - Installation, set up and fault detection of electronic control boards: - Setting “lines” (protected zones), remote keyboards and magnetic switches. - Install an anti-theft circuit for one zone protection. - Install an anti-theft circuit for two zones protection. - Install an anti-theft circuit for three zones protection. - Install an anti-theft circuit for four zones protection. *Technical Requirements: experimental panel* - PANEL. The size should be fully compatible with the vertical working positions of the a.m. unit. - Equipped with sockets for components of the antitheft system - rear part of the panel components connected with plastic tubes with holes in correspondence of components to be installed - support plates and covers and all the required accessories for a complete and perfect installation of all the components in the panel above described. *Technical Requirements: programmable anti theft electronic control board* - up to 4 programmable protection zones, - one 24h alarm circuit, - on-board programming keyboard, - 0 to 20 min programmable alarm time, - 5 A contacts relay, - protection fuses, - outputs for powering detectors, - charging external batteries and controlling self-powered sirens, - signalling LEDs. - Supplied with the due resistors balancing the 24h circuit and the alarm lines. Power supply: 230 Vac – 50/60 Hz; Battery and charger: 12 Vdc – 2 Ah. *Technical Requirements: sensors to be installed on the panels* - 1 (IR + microwave), 75 degrees horizontal coverage, over 12 m range, 10 GHz, 10 mW, NC contact for 24h line;

		- 1 IR passive sensor, 90 degrees horizontal coverage, over 12 m range, NC contact for 24h line; - 1 vibration-level adjustable detector with NC contact ; - 1 magnetic detector. *Technical Requirements: actuators to be installed on the panels* - 1 self-powered outdoor electronic siren (supplied with battery), over 100 dB acoustic power, - 1 two-tone indoor siren, 80 -100 dB with modulated frequency: 2-3 Hz; - 1 remote electronic key, 3 state LEDs; key-reader supplied; - 1 remote keyboard for controlling and programming the control unit, LCD, 7 LEDs for signaling and programming
4.2.5	**6**	**Ringer kit (Bell system)** *Technical Requirements: practical exercises* Carry out not less than 50% of the following examples of practical exercises: - install, set up and detect faults of rings and buzzers with control from 1 point, - install, set up and detect faults of rings and buzzers with control from different points - install, set up and detect faults of rings/buzzers from an apartments and outdoor points. - install, set up and detect faults of apartments signaling and electrical key lock. - install, set up and detect faults of optical/acoustical signaling for hotels, schools, large offices. - install, set up and detect faults of optical/acoustical signaling for hospital, *Technical Requirements: experimental panel* - painted steel experimental panel with hinges, to be installed in the STUDENT VERTICAL PANEL. The size should be fully compatible with the vertical working positions of the a.m. unit. - Equipped with 10 or more rectangular holes for electrical embedded boxes, derivations boxes required for the practical exercises - rear part of the panel components connected with plastic tubes - support plates and covers and all the required accessories for a complete and perfect installation of all the components in the panel above described. *Technical Requirements: components to be installed on the panels* - 1electrical key lock, - 1 unit for visualizing the calls, - 6 pushbuttons 250 V/10 A (two of them with spy-lamps), - 1 set of 6 A fuses (with fuse-holders), - 2 rings + 1 buzzer, - 1 control transformer 230/12-24 V, - support plates and covers and all the required accessories for a complete and perfect installation of all the components in the panel above described.
4.2.6	**6**	**Video-Telephone Intercom kit** *Technical Requirements: practical exercises* Carry out not less than 50% of the following examples of practical exercises: - Install, set up and detect faults Video intercom links 2-wires system for: 1 outdoor position + 1 indoor position; - Install, set up and detect faults Video intercom links 2-wires system for: 1 outdoor position + 2 indoor positions. - Install, set up and detect faults of a video surveillance video camera - Install, set up and detect faults for Telephony: electronic board for indoor system up to 6 extensions. - Install, set up and detect faults of a combined use of indoor video-intercom and the phone system. *Technical Requirements: experimental panel* - PANEL. The size should be fully compatible with the vertical working positions of the a.m. unit.

		- Equipped with sockets for components of the antitheft system - rear part of the panel components connected with plastic tubes with holes in correspondence of components to be installed - support plates and covers and all the required accessories for a complete and perfect installation of all the components in the panel above described. <u>*Technical Requirements: components to be installed on the panel*</u> • 1 ¼" B/W CCD outdoor 2-wire video camera with, IR lighting, 2 calling buttons. • 1 B/W screen wall-type video intercom indoor 2-wire with lock opening screen mode switching pushbuttons, • 1 3.5" color display, wall-type video intercom 2-wire, including lock opening screen mode switching pushbuttons. • 1 2-wire video adapter • 1 indoor CCD-sensor color camera 2-wire digital systems • 1 4 Inputs + 4 outputs audio-video node • 1 PABX, 1 external (public network) line + 8 outputs indoor extensions, complete with interface between the PABX and the 2-wire video-intercom systems and network terminator with 9 jacks RJ 11 for quick connections. Including not less than 4 impulse/ multi-frequency phone sets with RJ 11. • a 12 V light for simulating electric lock • 230 Vac self-protected electronic power supply for 2-wire digital video interphone systems.
4.2.7	**6**	**Fire fighting alarm kit** <u>*Technical Requirements: practical exercises*</u> Carry out not less than 50% of the following examples of practical exercises: - Install, set up and detect faults for ***sensors used in fire-fighting control:*** rate-of-rise temperature sensor, optical smoke and gas-leakage sensors. - Install, set up and detect faults for ***actuators used in fire-fighting control:*** manual ON pushbuttons, blinkers, sirens and cut-fire doors (firewalls). - Install, set up and detect faults for ***the centralized fire-fighting programmable boards:*** functions carried out by the electronic control units. Typical programming according to the building/house distribution. Install, set up and detect faults for a circuit combining the above mentioned sensors <u>*Technical Requirements: experimental panel*</u> - PANEL. The size should be fully compatible with the vertical working positions of the a.m. unit. - Equipped with sockets for components of the antitheft system - rear part of the panel components connected with plastic tubes with holes in correspondence of components to be installed - support plates and covers and all the required accessories for a complete and perfect installation of all the components in the panel above described. <u>*Technical Requirements: components to be installed on the panel*</u> • *1 electronic control board* with 2 alarm lines and manual alarms, self-powered by internal batteries (2 x 12 Vdc). Power supply: 230 Vac and outputs for the sensors and the actuators. • *Sensors:* 1 pushbutton glass-encapsulated; 1 24 Vdc optical smoke sensor; 1 24 Vdc electronic temperature sensor; 1 extinguisher-surveillance contact • *Actuators:* 1 24 Vdc 2-tones siren; over 90 dB@1 m; 1 3 W blinker,24 Vdc; 1 24 Vdc firewall doors.
4.2.8	**1**	**Electrical risks and protection simulation panel** <u>*Technical Requirements: practical exercises*</u> Carry out not less than 50% of the following examples of practical exercises: • Simulation of an Electrical power distribution systems • Simulation of the most important protection devices • Simulation of safety and protection methods and grounding • Simulation of TT, TN, IT distribution systems • RCB: principle. Advantages and trip times and current tests

		• Simulation of Protection systems: grounding, RCB. • Selectivity and hierarchy of the protection devices. • insulation resistance measurement • ground resistance measurement • continuity test on protection wires • Resistance / impedance measure on the faulty loop *Technical Requirements: simulation panel with installed components* • steel structure, epoxy painted, with a robust, long, anti-tilting legs with rubber feet. • electrical components necessary to the proper power supply of the circuits are included in the panel. • front face made of insulating material and provides the support of the devices necessary to carry out the experiment programs. • includes real and operative electrical devices, with their international symbol labeled in the panel. *Technical Requirements: components* • **Grounding simulation:** 1 set: 0,3 Ω, 1 Ω + 1 set: 2 Ω, 20 Ω, 200 Ω, 2 k Ω + 2 ground user simulators: 50 kΩ , 15 kΩ, 5 kΩ, 1,5 kΩ, 500 Ω. • **Isolating transformer** : 3-ph 230-400 V / 230-400 V- 1500 VA • **RCBs:** 1 2 poles, 1 A, C curve, AC class + 1 2 poles, 1 A, C curve, A class • **Switching devices:** 1 switching device 4 x 2A, C curve + 1 switching device with 4-poles E.L.C.B. 25 A / 0,3 A, A class, selectivity “S” • **Thermal device:** 1 4 x 6 A, C curve with break coil for low voltage and emergency mechanical push button • Power cable: supplied complete with socket and plug • Safety jumpers and cables Ø 4 mm: qty required for the perfect development of all the exercises • Power supply 3 x 400 V / N / PE – 50/60 Hz

4.3	Qty.	**DIGITAL LEARNING RESOURCE** Digital resources for Electrical Lab in technical and professional schools (students age 15-18). *General Requirements:* • Operating according a 2.0 educational scheme that includes presentation using interactive whiteboards, theory, simulations, exercises and self-evaluation tests • List of digital resources (title and description) • Online e-catalogue of electrical products and materials with updates • Documentation in Arabic and/or Italian and/or English: - Student practical guide with self-evaluation - Teacher support guide with evaluation sheet - Teaching support documentation including simulations and models - Teaching support software to be used on smart-boards with projector
4.3.1	**1**	**Fundamentals on electrical components** *Minimum Requirements:* Carry out not less than 50% of the following topics: • Protection against direct and indirect contacts (CEI 64-8) • The electric circuit concept • Electrical conductivity • Units of measure and symbols • Ohm's Law • Measures in a circuit • Voltage generators • Resistance of a component • Serial connection of resistors • Parallel connection of resistors • Resistance of a sensor • Temperature-controlled heating • Electrical charge • Condenser • A condenser in a DC circuit • A condenser in an AC circuit • Condenser applications • Variable condenser • Inductance in DC and AC circuits • Inductance applications • Delayed shut-off light • Energy production and transmission

ITEM	Qty.	5 DESCRIPTION AND REQUIREMENTS:
		Lot 5 **ELECTRICAL INSTALLATION MATERIALS** ---------- ---------- ---------- • Components and tools should comply with decision No. 768/2008/EC and should have the EC (European) mark
5.1.	**Qty.**	**Electrical installation materials**
5.1.1	**12**	**Ampere-metric clamp** Suited to measuring discharge currents (leakage currents) and differential currents (to BGV A3). In addition to the current clamp function, this current clamp also includes the most common multi-meter functions via measuring connectors such as voltage measurement, resistance and continuity. *Minimum Requirements:* • Voltage AC: 0.1 – 400 V • Current AC: 0.01 mA – 60 A • Resistance: 0.1 – 400 Ω • Frequency range: 40 Hz – 1 kHz • Tested with 600 V CAT IV • Installation, user and maintenance manual
5.1.2	**12**	**Voltage, phase + continuity tester with field direction indicator, Max 400V** *Minimum Requirements:* • Power supplied by a durable solar cell and rechargeable lithium battery • Voltage insulation strength: 5 kV • Nominal voltage range: 12 ... 400 V • Frequency range: 0 ... 2000 Hz • Continuity testing: 0 ... 500kΩ
5.1.3	**24**	**TRMS Digital multimeter** *Minimum requirements –* • 22000 counts • Auto/Manual Ranging • 46 segments analogue bar • True RMS measures • DC voltage: 220 mV to 1000 V; AC Voltage: 220 mV to 750 V • DC Current: 220 microA to 10 A; AC Current: 220 microA to 10 A; Fuse protection. • Resistance: 220 ohm to 220 Mohm, 7 ranges. • Capacitance: 25 nF to 220 mF • Frequency: 10 Hz to 220 MHz
5.1.4	**100**	**Set of tools for electrical installations** Complete kit with the most essential tools for electrical/electronic, with handles covered in insulating material, insulation 1000V and for heavy duty operations *Minimum Requirements:* • Set of 4 different screwdrivers for cross head Philips screws ISO 8764 • Set of 4 different screwdrivers for slotted head screws ISO 2380 • Wire cutter for 2,5 and 4 mmq insulated cables • Crimper for terminal and connectors on 2,5 and 4 mmq cables • Long nose plier (small size) • Set of 8 (5, 6, 7, 8, 9, 10, 11 and 12 size) combination wrenches • Scissor for electrician
5.1.5	**10**	**Set of cables 2,5 mmq** Electrical cables compliant with IEC 60502 *Minimum Requirements:* • 300m yellow/green

		• 300m blue • 100m red • 100m black • 100m brown
5.1.6	**5**	**Set of cables 4 mmq** Electrical cables compliant with IEC 60502 *Minimum Requirements:* • 300m yellow/green • 300m blue • 100m red • 100m black • 100m brown
5.1.7	**20**	**Set of lugs for 2,5 mmq electrical cables** Lugs for electrical cables coated with tin or copper *Minimum Requirements:* • 200 ring terminal • 200 spade terminals • 200 pin insulated connector • 200 female disconnects (open barrel) • 200 male disconnect (plate)
5.1.8	**10**	**Set of lugs for 4 mmq electrical cables** Lugs for electrical cables coated with tin or copper *Minimum Requirements:* • 200 ring terminal • 200 spade terminals
5.1.9	**25**	**Set of wire nuts** Wire nuts coated with tin or copper *Minimum Requirements:* • 200 Wire nuts for 3x2,5 mmq cables • 200 Wire nuts for 3X4 mmq cables • 200 Wire nuts with screw for 3x2,5 mmq cables • 200 Wire nuts with screw for 3X4 mmq cables
5.1.10	**20**	**Set of different electrical connectors and terminals** Set with different type of connectors *Minimum Requirements:* Including not less than 50% of the following types of terminals for a total of 000 terminals: • 100 Terminals with screw clamp • 100 Terminals with spring clamp • 100 Terminals with insulation piercing • 100 Terminals for grounding • 100 Terminals sectionable • 100 Terminals with fuse holder • 100 Terminals with diode holder • 100 Terminals with fixtures • 100 Terminals with hook for profile (DIN guide) • 100 Terminals with direct fixing to the panel • 100 Guide terminal • 100 Terminals used in environments with a danger of explosion (Ex) • 100 Flying terminals in installations for residential use
5.1.11	**24**	**Industrial marking system** Printing systems for the industrial marking and their auxiliaries with a set of cards and pipes for cables *Minimum Requirements:* • 1.000 Cards of different numbers and letters • 1.000 Pipes of different numbers and letters for 2,5 mmq cables • 1.000 Pipes of different numbers and letters for 4 mmq cables
5.1.12	**25**	**Polyester conduit snakes** *Minimum Requirements:* • 20 m length
5.1.13	**6**	**Set of MCBs (modular circuit breakers)** **T**o assemble panels and enclosures *General Requirements:*

		• Thermal magnetic circuit breakers • In = 63 A • CEI EN 60898 *Minimum Requirements:* q.ty polarity Icu (kA) Earth leakage 20 1P 6 no 10 1P+N 6 yes 10 2P 6 yes 5 1P+N 10 no 5 2P 10 no
5.1.14	**6**	**Set of MCCBs (moulded case circuit breakers - Thermal magnetic)** To assemble panels and enclosures *General Requirements:* • Thermal magnetic circuit breakers • In = 63 A • CEI EN 60898 *Minimum Requirements:* q.ty polarity Icu (kA) In (A) 10 1P 36 100 3 4P 36 160
5.1.15	**3**	**Set of MCCBs (moulded case circuit breakers - Thermal magnetic)** To assemble panels and enclosures *Minimum Requirements:* q.ty polarity Icu (kA) In (A) 6 4P 36 125 4 4P 70 400 2 4P 100 1600
5.1.16	**3**	**Set of MCCBs (moulded case circuit breakers – Electronic Breakers)** To assemble cabinets *Minimum Requirements:* q.ty polarity Icu (kA) In (A) 5 4P 100 1200
5.1.17	**3**	**Set of ACBs (air case circuit breakers)** To assemble cabinets: *Minimum Requirements:* q.ty polarity Icu (kA) In (A) 2 4P 100 2500
5.1.18	**6**	**Electrical panels (up to 250A)** *Minimum Requirements:* • Electrical switchboard/multi-board with 2 or more DIN rail lines for MCBs and MCCB (up to 250A) • Electrical distribution board with bus-bar system (incoming MCB or MCCB up to 250A, outgoing MCBs up to 63A) • Electrical distribution boards with bus-bar system (incoming MCCB up to 250A, outgoing 1-2-3 P MCCBs up to 63A)
5.1.19	**6**	**Power distribution enclosures (from 250A to 1600A)** *Minimum Requirements:* • Electrical power distribution enclosure (using MCCBs) working on standard distribution system: with horizontal splitting combs (single-phase and three-phase up to 63A) and vertical power combs (2, 3 or 4 rows with 125 or 150 spacing), terminal blocks, splitters up to 400A, bus-bar supports up to 1600A. • Electrical power distribution enclosure (using MCCBs) working on optimized distribution system: with column chassis, active rear panels, row splitters and MCCB support bases (rapid cabling system)
5.1.20	**3**	**Distribution enclosures and cabinets (up to 4000A)** *Minimum Requirements:* • Electrical distribution enclosure with 2 columns and 2 ACBs (4P, 2000A) one for the main power line and one for the generator line) with 4 MCCBs (630A, drawout system, with motor operator)

ITEM	Qty.	DESCRIPTION AND REQUIREMENTS:
		Lot 6 **ELECTRICAL EQUIPMENT** ---------- ---------- ---------- • Components and tools should comply with EC directives and should have the EC (European) mark
6.1	**Qty.**	**Electrical equipment**
6.1.1	**3**	**Set of Transformers** *Minimum Requirements:* • Metallic trolley, heavy duty to store and carry the set of transformers • transformer single-phase 220/50 VAC, 50 VA (galvanic separation) • transformer single-phase 220/50 VAC, 300 VA (galvanic separation) • transformer single-phase 220/50 VAC, 1000 VA (galvanic separation) • transformer three-phases 500/380/220, 500 VA (galvanic separation) • transformer three-phases 500/380/220, 5000 VA (galvanic separation)
6.1.2	**3**	**Set of induction motors (3000 turn/min)** *Minimum Requirements:* • Metallic trolley, heavy duty to store and carry the set of induction motors • AC motor single-phase 300 VA • AC motor three-phase 1000 VA with star / delta connections • AC motor three-phases 3000 VA with star / delta connections
6.1.3	**3**	**Set of electronic drivers (inverters) for induction motors (100-3000 turn/min)** *Minimum Requirements:* • 220 VAC electronic speed/torque controlled driver single-phase 300 VA • 380 VAC electronic speed/torque controlled driver three-phase 1000 VA
6.1.4	**3**	**Set of electronic flux and torque control drive for induction motor** *Minimum Requirements:* • 220 VAC electronic speed/torque controlled driver single-phase 300 VA • 380 VAC electronic speed/torque controlled driver three-phase 1000 VA

ITEM	Qty.	6 DESCRIPTION AND REQUIREMENTS:

Lot 7
ELECTRONIC MOTOR DRIVERS

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- Dimensions of the Electrical Industrial Installation Workshop are about 12m(w) x 11,5m(l) (layout can be requested to the contracting authority).
- **Computer for the teacher and intelligent board will be provided by the Contracting Authority (see Annex A)**

General Requirements:

- The items of this lot should be delivered installed, connect to required utilities (water, sewage, electricity, gas) and functionally operational in the Electrical Industrial Installation Workshop
- Manuals, guidelines, technical documentation, demos and tutorials:
  - in digital format (CD or DVD)
  - SO: OSX and/or Linux and/or Windows
  - in English and/or Italian and/or Arabic
  - in three copies
- 4 hours demo to teachers demonstrating most of the functionalities of the equipment

7.1	Qty.	WORKBENCHS
7.1.1	6	**Student vertical workbench** The unit should be the support and should include boards, panels and tools common to all the educational kits to develop a set of practical exercises referred to the following subjects: • practical exercises to study diodes configurations. • practical exercises to study SCR configurations. • practical exercises to study MOSFET drive configurations. • practical exercises to study all the classical SCR-controlled rectifier configuration circuits. • practical exercises to study other classical power semiconductors. • practical exercises to study the PWM technique to control the power devices. *Technical requirements - Structure:* • to be built in structural steel and welded sheet steel. • the work plane made of strong chipboard covered with plastic laminate. • the upright frame will support vertical interchangeable exercise panels/boards. • should accommodate on the same side two students working at the same time ensuring comfortable and safe operations. • with No. 2 metal drawers (key locked) per position (total= 4 drawers per bench) • the student workbench can be positioned against a wall *Technical requirements - Electrical:* • AC main line 3 x 230 or 3 x 400 V 25 A and 230 V single-phase line 25 A with MCB, RCB (30 mA sensitivity) and 4 mm. safety terminals. This main line should include: EPB (Emergency Push Button), with mechanical lock and ¼ turn to unlock, key switch and min voltage coil protection. • AC output single phase 400V 10A • AC variable output single phase 0-400V 5A • DC output 600V – 10A • DC variable output 0-600V – 10A • Operating and maintenance manuals *Technical requirements – TRMS Digital multimeter:* • 22000 counts • Auto/Manual Ranging

		• 46 segments analogue bar • True RMS measures • DC voltage: 220 mV to 1000 V; AC Voltage: 220 mV to 750 V • DC Current: 220 microA to 10 A; AC Current: 220 microA to 10 A; Fuse protection. • Resistance: 220 ohm to 220 Mohm, 7 ranges. • Capacitance: 25 nF to 220 mF • Frequency: 10 Hz to 220 MHz • Special Functions: diode test, Continuity, Temperature, Duty Cycle (%), Transistor (hFE) test, Data Hold, Peak Hold, RS-232C. *Technical requirements – digital oscilloscope:* • 5.7 inches TFT LCD Color display • two channels • 100 MHz BW (250 MSa/s real time and 25 GSa/s equivalent time sampling rate) • Rise time: 3.5 ns approx. • sensitivity: 2 mV/div to 10 V/div • Input coupling: AC, DC & ground; max: 300 V (DC + AC peak) • Time 1 ns/div to 50 s/div • 4 K memory per channel • Save/recall of settings and waveforms • XY mode • Pwr Supply: 100-240 V-48 / 63 Hz. • Operating and maintenance manual. *Technical requirements – instruments and tools required and common to different educational kit:* • Generators and power supplies • Set of RLC loads • Set of brakes and mechanical loads • Set of starts and shunt rheostats • Control / Measure boards / panels / connectors • Sensors and actuators
7.1.2	**12**	**Stool for Students** Ergonomic and comfortable stool without arms and according to the height of the benches *Minimum Requirements:* Rigid (without rotation, wheels and adjustable elements) Heavy duty: strong and secure construction
7.1.3	**4**	**Sliding door storage unit** Sliding door storage unit of coordinated design with the workbench to accommodate panels with practical exercises under completion *Minimum Requirements:* • Dimension about: 180Hx60Wx95L cm • Lockable • Heavy duty type • Sliding door
7.2	**Qty.**	**KITS for PRACTICAL EXERCISE** *General Requirements: for each kit* 1. Box with equipment to carry out the practical exercises 2. Box with spare parts to repeat the practical exercises of the kit a minimum of 30 times [only wear and tear should be considered] 3. Vertical panel 4. Commercial datasheet for each component and material included in the box 5. List of practical exercises (title and description) that can be carried out 6. Documentation in Arabic and/or Italian and/or English for each practical exercise - Safety recommendations during the preparation, execution and closure of practical exercises - Student practical guide with self-evaluation for each practical exercise - Teacher support guide with evaluation sheet for each practical exercise - Teaching support documentation including simulations and models

		- Teaching support software to be used on smart-boards with projector - Commercial and technical documentation (different brands, suppliers) of the components and materials included in the kit
7.2.1	**3**	**Power devices kit (0.5 kW)** *Minimum Requirements:* Carry out not less than 50% of the following examples of practical exercises: • Explore the functioning of a diode • Explore the functioning of a SCR • Explore the functioning of a Triac • Explore the functioning of a PWM MOSFET Chopper • Explore the functioning of a PWM IGBT Chopper • Explore the functioning of a linear / PWM BJT Chopper • Explore the functioning of a semi-controlled SCR single phase bridge • Explore the functioning of a power control with BJT • Explore the functioning of a power control with IGBT • Explore the functioning of a power control with MOSFET
7.2.2	**3**	**AC-DC non controlled diodes rectifiers kit (1 kW)** *Minimum Requirements:* Carry out not less than 50% of the following examples of practical exercises: • Explore the functioning of a single pulse rectifier (direct polarization) • Explore the functioning of a single pulse rectifier (inverse polarization) • Explore the functioning of a two pulse rectifiers - cathodes connected • Explore the functioning of a two pulse rectifiers - anodes connected • Explore the functioning of a three pulse rectifiers - cathodes connected • Explore the functioning of a three pulse rectifier - anodes connected • Explore the functioning of a six pulse rectifier - cathodes connected • Explore the functioning of a two pulse bridge rectifier • Explore the functioning of a six pulse bridge rectifier
7.2.3	**3**	**AC-DC controlled SCR rectifiers kit (1 kW)** *Minimum Requirements:* Carry out not less than 50% of the following examples of practical exercises: • Explore the functioning of a single pulse converter (direct polarization) • Explore the functioning of a single pulse converter (inverse polarization) • Explore the functioning of a two pulse midpoint converter - cathodes connected • Explore the functioning of a two pulse midpoint converter - anodes connected • Explore the functioning of a three pulse midpoint converter - cathodes connected • Explore the functioning of a three pulse midpoint converter - anodes connected • Explore the functioning of a half controlled bridge • Explore the functioning of a fully controlled bridge • Explore the functioning of a three-phase half controlled bridge • Explore the functioning of a three-phase fully controlled bridge • Explore the functioning of a current limiting circuit for a 220V AC/DC converter
7.2.4	**3**	**AC-AC inverters kit (about 1 kW)** *Minimum Requirements:* Carry out not less than 50% of the following examples of practical exercises: • Explore the functioning of a PWM control card for a 380V AC/AC inverter • Explore the functioning of a 380V AC/AC inverter for power drive • Explore the functioning of a 380V AC/AC inverter with active load • Explore the functioning of a 380V AC/AC inverter with reactive load • Explore the functioning of a 380V AC/AC inverter under over current conditions • Explore the functioning of a 380V AC/AC inverter under short-circuit conditions
7.2.5	**3**	**AC-DC converters with DC motor kit (about 0.5 kW)** The kit should include an industrial type DC motor of about 500W with separate windings and connections for armature and field and with coil thermal protection and its driver. Easy mechanical coupling with tachogenerators. *Minimum Requirements:* Carry out not less than 50% of the following examples of practical exercises: • Explore electrical features of the DC motor • Explore mechanical features of the DC motor • Explore the functioning of a DC motor drive • Explore the functioning of a current loops in a AC-DC converter • Explore the functioning of a control and power circuits in a 2Q AC-DC converter

		• Explore the functioning of a control and power circuits in a 4Q AC-DC converter
7.2.6	**3**	**AC-AC inverters with 3-phases asynchronous motor kit (about 0.5 kW)** The kit should include an industrial type AC induction motor of about 500W with star delta connections and with coil thermal protection and its driver. Easy mechanical coupling with tachogenerators. *Minimum Requirements:* Carry out not less than 50% of the following examples of practical exercises: • Explore electrical features of the AC motor • Explore mechanical features of the AC motor • Explore the functioning of an AC motor drive • Explore the functioning of a V/Hz scalar drive • Explore the functioning of a 220V start configuration powered with 380V – 85Hz. • Explore the functioning of a Field Oriented Drive • Explore the functioning of acceleration / deceleration ramps • Explore the functioning of a torque control with different mechanical loads
7.2.7	**3**	**Electrical machines education kit (about 0,5 kW each machine)** *General Requirements:* • Industrial type and performances • All parts equipped with quick action mounting system • All parts easily to align • All machine equipped with over temperature protection • All machine equipped with one shaft end with coupling piece suitable for the servo brake and drive unit • All connections on safety socket *Minimum Requirements:* Carry out not less than 50% of the following examples of practical exercises: • Connect and control a DC motor / generator shunt machine • Connect and control a DC motor series machine • Connect and control a Universal motor • Connect and control single phase capacitor motor • Connect and control a three-phase asynchronous motor 3 x 230/400V • Connect and control a three-phase asynchronous motor 3 x 400/690V • Connect and control a synchronous machine
7.3	**Qty.**	**DIGITAL LEARNING RESOURCE for INDUSTRIAL INSTALLATIONS** Digital resources for Electrical Lab in technical and professional schools (students age 15-18). *General Requirements:* • Operating according a 2.0 educational scheme that includes presentation using interactive whiteboards, theory, simulations, exercises and self-evaluation tests • List of digital resources (title and description) • Online e-catalogue of electrical products and materials with updates • Documentation in Arabic and/or Italian and/or English: - Student practical guide with self-evaluation - Teacher support guide with evaluation sheet - Teaching support documentation including simulations and models - Teaching support software to be used on smart-boards with projector
7.3.1	**1**	**Electrical machines principles and measures** *Minimum Requirements:* Carry out not less than 50% of the following topics: • Basic principles of electrical machines (static and rotating) • Different motor types AC and DC • Mechanical principles • Electrical principles • Parallel connection of generators • Single-phase and three-phase AC motor • Load characteristics

ITEM	Qty.	7 DESCRIPTION AND REQUIREMENTS:

Lot 8

ELECTRICAL INDUSTRIAL INSTALLATIONS

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- Dimensions of the Electrical Industrial Installation Workshop are about 12m(w) x 11,5m(l) (layout can be requested to the contracting authority).
- **Computer for the teacher and intelligent board will be provided by the Contracting Authority (see Annex A)**

General Requirements:

- The items of this lot should be delivered installed, connect to required utilities (water, sewage, electricity, gas) and functionally operational in the Electrical Domestic Installation Workshop
- Manuals, guidelines, technical documentation, demos and tutorials:
  - in digital format (CD or DVD)
  - SO: OSX and/or Linux and/or Windows
  - in English and/or Italian and/or Arabic
  - in three copies
- 4 hours demo to teachers demonstrating most of the functionalities of the equipment

8.1	Qty.	WORKBENCHS
8.1.1	6	**Student vertical workbench** The unit should be the support and should include boards, panels and tools common to all the educational kits to develop a set of practical exercises referred to the following subjects: • practical exercises to practice with contactors • practical exercises to practice with cabinets for industrial applications *Technical requirements - Structure:* • to be built in structural steel and welded sheet steel. • the work plane made of strong chipboard covered with plastic laminate. • the upright frame will support vertical interchangeable exercise panels/boards. • should accommodate on the same side two students working at the same time ensuring comfortable and safe operations. • with No. 2 metal drawers (key locked) per position (total= 4 drawers per bench) • the student workbench can be positioned against a wall *Technical requirements - Electrical:* • 1 AC main line 3 x 230 or 3 x 400 V 16 A and 230 V single-phase line 16 A with MCB, RCB (30 mA sensitivity) and 4 mm. safety terminals. This main line should include: EPB (Emergency Push Button), with mechanical lock and ¼ turn to unlock, key switch and min voltage coil protection. • 1 AC low voltage line 12-24 V - 4 A single-phase line, overload and short-circuit protection. • 1 DC voltage line: -12/0/+12 VDC / 2 A • Operating and maintenance manuals *Technical requirements – TRMS Digital multimeter:* • 22000 counts • Auto/Manual Ranging • 46 segments analogue bar • True RMS measures • DC voltage: 220 mV to 1000 V; AC Voltage: 220 mV to 750 V • DC Current: 220 microA to 10 A; AC Current: 220 microA to 10 A; Fuse protection. • Resistance: 220 ohm to 220 Mohm, 7 ranges. • Capacitance: 25 nF to 220 mF

		• Frequency: 10 Hz to 220 MHz • Special Functions: diode test, Continuity, Temperature, Duty Cycle (%), Transistor (hFE) test, Data Hold, Peak Hold, RS-232C.
8.1.2	**12**	**Stool for Students** Ergonomic and comfortable stool without arms and according to the height of the benches *Minimum Requirements:* Rigid (without rotation, wheels and adjustable elements) Heavy duty: strong and secure construction
8.1.3	**4**	**Sliding door storage unit** Sliding door storage unit of coordinated design with the workbench to accommodate panels with practical exercises under completion *Minimum Requirements:* • Dimension about: 180Hx60Wx95L cm • Lockable • Heavy duty type • Sliding door
8.2	**Qty.**	**KITS for PRACTICAL EXERCISE** *General Requirements: for each kit* 1. Box with equipment to carry out the practical exercises 2. Box with spare parts to repeat the practical exercises of the kit a minimum of 30 times [only wear and tear should be considered] 3. Vertical panel 4. Commercial datasheet for each component and material included in the box 5. List of practical exercises (title and description) that can be carried out 6. Documentation in Arabic and/or Italian and/or English for each practical exercise - Safety recommendations during the preparation, execution and closure of practical exercises - Student practical guide with self-evaluation for each practical exercise - Teacher support guide with evaluation sheet for each practical exercise - Teaching support documentation including simulations and models - Teaching support software to be used on smart-boards with projector - Commercial and technical documentation (different brands, suppliers) of the components and materials included in the kit
8.2.1	**12**	**Circuits with contactors (220Vac up to 25A) kit** *Minimum Requirements:* Carry out not less than 50% of the following examples of practical exercises: • Installing and cabling buttons and pushbuttons of different colours with 1 NO contact + 1 NC 10 A, set of three fuse holders with fuses, NO and NC contacts • Installing and cabling multi-function timers (delayed closing, delayed opening) • Installing and cabling Jog mode • Installing and cabling Self-latching circuit • Installing and cabling auxiliary relay, 2 auxiliary NO contacts + 2 NC • Installing and cabling lamp socket for warning lights with diameter of 22 mm, of different colours • Installing and cabling pushbutton lock • Installing and cabling multiple control points • Installing and cabling electronic time relays • Installing and cabling overcurrent release and motor protection switch • Installing and cabling three-phase socket • Installing and cabling main and control circuit • Installing and cabling protective interlocking • Installing and cabling reversing contactor circuit • Installing and cabling reversing contactor circuit with automatic star-delta starting • Installing and cabling wire boxes for 4 button operators / lamp socket • Installing and cabling a contactor and separate control of two contactors • Installing and cabling a remote control reverser with block on pushbuttons and with timer • Installing and cabling impulse control of a contactor and separate control of two contactors

		Technical Requirements: experimental panels: • painted or galvanized steel frame experimental panel with metal strips and hinges, to be installed vertically in the students workbench to be used for installing the components. • Painted or galvanized steel pierced panel with metal strips and hinges, to be installed vertically in the students workbench to be used for installing the components.
8.2.2	**12**	**Wired Industrial installations (220Vac up to 25A) kit** *Minimum Requirements:* Carry out not less than 50% of the following examples of practical exercises: • Direct starting and reverse of single-phase and 3-phase asynchronous motors • Star-delta starters reversers • Controlling a contactor from one point • Impulse control of a contactor • Separate control of two contactors • Remote control starter for 3-phase asynchronous cage motor with thermal relay and fuses or with magneto-thermal overload cut-out breaker • Remote control reverser for 3-phase asynchronous cage motor • Remote control reverser for 3-phase asynchronous cage motor with block on the pushbuttons • Remote control reverser for 3-phase asynchronous cage motor with limit switches • Remote control reverser for 3-phase asynchronous cage motor with delay • Star-delta starter for 3-phase asynchronous cage motor • Remote control reverser, star-delta starter for 3-phase asynchronous cage motor • Starting with rotor resistances for 3-phase asynchronous cage motor • Starting with autotransformer for 3-phase asynchronous cage motor • Starting with rotor resistances for 3-phase asynchronous wound-rotor motor • Remote controlled pole-change switch for 2-winding 3-phase asynchronous cage motor • Remote controlled pole-change switch for 3-phase asynchronous Dahlander motor • Reverse current braking for 3-phase asynchronous cage motor • Sequence starting of 3·3-phase asynchronous motors • Contactor starter for single-phase asynchronous motor • Remote control reverser for single-phase asynchronous motor
8.3	**Qty.**	**DIGITAL LEARNING RESOURCE for INDUSTRIAL INSTALLATIONS** Digital resources for Electrical Lab in technical and professional schools (students age 15-18). *General Requirements:* • Operating according a 2.0 educational scheme that includes presentation using interactive whiteboards, theory, simulations, exercises and self-evaluation tests • List of digital resources (title and description) • Online e-catalogue of electrical products and materials with updates • Documentation in Arabic and/or Italian and/or English: - Student practical guide with self-evaluation - Teacher support guide with evaluation sheet - Teaching support documentation including simulations and models - Teaching support software to be used on smart-boards with projector
8.3.1	**1**	**Electrical Panels, Power distribution enclosure and cabinets** *Minimum Requirements:* Carry out the following topics: • Assembling procedures • Security • Technical features • Maintenance

ITEM	Qty.	8 DESCRIPTION AND REQUIREMENTS:

Lot 9

HOME/BUILDING AUTOMATION KIT

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- The KITs will be installed in the "PLC and Automation LAB" (See Annex-C)

General Requirements:

- The KITs for practical exercises must be compatible with the vertical benches in the "PLC and Automation LAB" (Lot 09) or installed in a suitable vertical structure to be positioned and fixed on the benches.
- The items of this lot should be delivered installed, connect to required utilities (water, sewage, electricity, gas) and functionally operational in the Electrical Domestic Installation Workshop
- Manuals, guidelines, technical documentation, demos and tutorials:
  - in digital format (CD or DVD)
  - SO: OSX and/or Linux and/or Windows
  - in English and/or Italian and/or Arabic
  - in three copies
  - 4 hours demo to teachers demonstrating most of the functionalities of the equipment

9.1	Qty.	**KITS for PRACTICAL EXERCISE** *General Requirements: for each kit* 1. Box with equipment to carry out the practical exercises 2. Box with spare parts to repeat the practical exercises of the kit a minimum of 30 times [only wear and tear should be considered] 3. Vertical panel to wire practical exercises 4. Commercial datasheet for each component and material included in the box 5. List of practical exercises (title and description) that can be carried out 6. Documentation in Arabic and/or Italian and/or English for each practical exercise - Safety recommendations during the preparation, execution and closure of practical exercises - Student practical guide with self-evaluation for each practical exercise - Teacher support guide with evaluation sheet for each practical exercise - Teaching support documentation including simulations and models - Teaching support software to be used on smart-boards with projector - Commercial and technical documentation (different brands, suppliers) of the components and materials included in the kit
9.1.1	6	**Building automation panel using a bus system kit** Realize a simple home/building automation system and control it *General Requirements:* • Complete kit of components to design, configure and assembly of a BUS electrical system (KNX/HBAC, SCS, KNX/EIB) • Wired and Wi-Fi configuration of the circuit • User Manual and app notes *Minimum Requirements:* Carry out the following examples of practical exercises: • Control Lights (resistive, electronic loads, RGB, dimmer lights) • Control Motors for rolling shutters • Control Air conditioning control • Control Energy management system • Control Socket • Control Video-surveillance • Realize remote control from Internet for the supervision of the full system
9.2	Qty.	**DIGITAL LEARNING RESOURCES for HOME and BUILDING AUTOMATION and RENEWABLE ENERGY** *General Requirements:* • Operating according a 2.0 educational scheme that includes presentation using

		interactive whiteboards, theory, simulations, exercises and self-evaluation tests • List of digital resources (title and description) • Online e-catalogue of electrical products and materials with updates • Documentation in Arabic and/or Italian and/or English: - Student practical guide with self-evaluation - Teacher support guide with evaluation sheet - Teaching support documentation including simulations and models - Teaching support software to be used on smart-boards with projector
9.2.1	**1**	**Supervision solution (hardware and software)** Application for the integration of data, monitoring and control of all the systems *Minimum Requirements:* • Web based software for the monitoring of the electrical management system from internet • Security access (password protection) from Internet (both local and remote) • The photovoltaic monitoring system has to work both stand alone and integrated in the home/building automation web based supervisor (management of the loads and logic control of the energy produced) • Redundant configuration to ensure highly reliability

ITEM	Qty.	9 DESCRIPTION AND REQUIREMENTS:

Lot 10
PHOTOVOLTAIC KIT

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- The KITs will be installed in the "PLC and Automation LAB" (See Annex C)

General Requirements:

- The KITs for practical exercises must be compatible with the vertical benches in the "PLC and Automation LAB" (Lot 09) or installed in a suitable vertical structure to be positioned and fixed on the benches.
- The items of this lot should be delivered installed, connect to required utilities (water, sewage, electricity, gas) and functionally operational in the Electrical Domestic Installation Workshop
- Manuals, guidelines, technical documentation, demos and tutorials:
  - in digital format (CD or DVD)
  - SO: OSX and/or Linux and/or Windows
  - in English and/or Italian and/or Arabic
  - in three copies
  - 4 hours demo to teachers demonstrating most of the functionalities of the equipment

10.1	Qty.	**KITS for PRACTICAL EXERCISE** *General Requirements: for each kit* 7. Box with equipment to carry out the practical exercises 8. Box with spare parts to repeat the practical exercises of the kit a minimum of 30 times [only wear and tear should be considered] 9. Vertical panel to wire practical exercises 10. Commercial datasheet for each component and material included in the box 11. List of practical exercises (title and description) that can be carried out 12. Documentation in Arabic and/or Italian and/or English for each practical exercise - Safety recommendations during the preparation, execution and closure of practical exercises - Student practical guide with self-evaluation for each practical exercise - Teacher support guide with evaluation sheet for each practical exercise - Teaching support documentation including simulations and models - Teaching support software to be used on smart-boards with projector - Commercial and technical documentation (different brands, suppliers) of the components and materials included in the kit
10.1.2	**6**	**Photovoltaic kit** *General Requirements:* • photovoltaic panel 40W – 100 W • solar charge controller 12-24V 10 A input 60V • lead battery 12V 100Ah • monitor unit with large display showing data during electricity production • inverter 12-24Vdc/220Vac 300W 50Hz • charge controller • solar radiation photometer *Minimum Requirements:* Carry out not the following examples of practical exercises: - Assemble a simple photovoltaic circuit with inverter, charge controller and battery - Install and control a group of lights - Measure the efficiency of the system - Assess the cost of energy produced and consumed
10.2	**Qty.**	**DIGITAL LEARNING RESOURCES for HOME and BUILDING AUTOMATION and RENEWABLE ENERGY** *General Requirements:* • Operating according a 2.0 educational scheme that includes presentation using interactive whiteboards, theory, simulations, exercises and self-evaluation tests • List of digital resources (title and description)

		• Online e-catalogue of electrical products and materials with updates • Documentation in Arabic and/or Italian and/or English: - Student practical guide with self-evaluation - Teacher support guide with evaluation sheet - Teaching support documentation including simulations and models - Teaching support software to be used on smart-boards with projector
10.2.1	**1**	**Renewable Energy Systems evolution, dimensioning, computing** Digital resources in Renewable Energy System for technical and professional schools *Minimum Requirements:* • Selection of the technology according to the needs • Dimension a photovoltaic system • Installation and positioning of a photovoltaic system

Lot 11
DISCRETE ELECTONIC COMPONENTS

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General Requirements:

- Manuals, guidelines, technical documentation, demos and tutorials:
  - in digital format (CD or DVD)
  - SO: OSX and/or Linux and/or Windows
  - in English and/or Italian and/or Arabic
  - in three copies
  - 4 hours demo to teachers demonstrating most of the functionalities of the equipment

11.1	Qty.	WORKBENCHS
11.1.1	6	**Student vertical workbench** The unit should be the support and should include boards, panels and tools common to all the educational kits to develop a set of practical exercises referred to the following subjects: • practical exercises in discrete electronics *Technical requirements - Structure:* • to be built in structural steel and welded sheet steel. • the work plane made of strong chipboard covered with plastic laminate. • should accommodate on the same side two students working at the same time ensuring comfortable and safe operations. • with No. 2 metal drawers (key locked) per position (total= 4 drawers per bench) • the student workbench can be positioned against a wall *Technical requirements – support with electronic development module:* • Metallic Support for housing the experiment modules. The modules can be fixed to the frame of the support by using a "Plug-in" system. The electronic development module should include on-board: • function generator: pulse, sine, triangle, square; 0.1 to 100 khz in 6 steps, a fine frequency control included. • TTL generator: TTL voltage generator output; range: 1 hz to 100 khz. • logic inputs: 8 lever switches and 2 pushbuttons; • analog inputs: 4 potentiometers with 3 available terminals. terminals can be used in the breadboards; • display: 4-digit display. • logic indicators: 10 leds available to be connected. ttl logical level. • thumbwheel switches: 4 decimal bcd switches • loudspeaker • breadboard: 2000 total connection points. *Technical requirements - Electrical:* • AC main line 3 x 230 or 3 x 400 V 16 A and 230 V single-phase line 16 A with MCB, RCB (30 mA sensitivity) and 4 mm. safety terminals. This main line should include: EPB (Emergency Push Button), with mechanical lock and ¼ turn to unlock, key switch and min voltage coil protection. • AC low voltage line 12-24 V - 4 A single-phase line, overload and short-circuit protection. • DC voltage line: -12/0/+12 VDC / 2+2 A • DC voltage line: + 5 VDC 2 A • Variable output 1 Vdc – 24 Vdc 2 A regulated and electronically protected • Operating and maintenance manuals
11.2	**Qty.**	**KITS for PRACTICAL EXERCISE** *General Requirements: for each kit* 1. Box with equipment to carry out the practical exercises

		2. Box with spare parts to repeat the practical exercises of the kit a minimum of 30 times [only wear and tear should be considered] 3. Vertical panel to wire practical exercises 4. Commercial datasheet for each component and material included in the box 5. List of practical exercises (title and description) that can be carried out 6. Documentation in Arabic and/or Italian and/or English for each practical exercise - Safety recommendations during the preparation, execution and closure of practical exercises - Student practical guide with self-evaluation for each practical exercise - Teacher support guide with evaluation sheet for each practical exercise - Teaching support documentation including simulations and models - Teaching support software to be used on smart-boards with projector - Commercial and technical documentation (different brands, suppliers) of the components and materials included in the kit
11.2.1	**6**	**Electronic development kit** The electronic development kit should be installed on to the support as above mentioned. *Minimum Requirements:* Carry out not less than 50% of the following examples of practical exercises: Analog Electronics circuits: • Half and full-wave rectifiers; • Regulated power supplies with discrete components and integrated circuits; • Amplifiers: different types and configurations: wide-band, selective, class C, complementary symmetry etc.; • Sinusoidal oscillators: Meissner, Hartley and Colpitts; • Non-sinusoidal oscillators: astable, monostable and bistable multivibrators and Schmitt trigger; • Voltage regulators with UJT, SCR, DIAC and TRIAC; • Circuits with operational amplifiers: different configurations and filters and waveform generators; Digital Electronics circuits: • OR-AND-NOR-NAND-NOT ports with discrete components and IC. • Combinatory logic circuits; • Flip-flop RS, D, JK, JK Master Slave and Latch; • Sequential logic circuits; • 4-bit shift registers; binary and decade counters; decoders, 7-segment drive, multiplexer and demultiplexer etc.
11.2.2	**6**	**Operational Amplifier kit** The electronic development kit should be installed on to the support as above mentioned. *Minimum Requirements:* Carry out not less than 50% of the following examples of practical exercises: • Op-Amp (Operational Amplifier): main data sheet characteristics: feedback and non-feedback gain, Zin, Zout, slew-rate, CMRR, bandwidth vs. frequency. Classical linear configurations: • Inverting / Non-inverting amplifiers • Adder • Substractor Classical non-linear configurations: • Integrator • Differentiator • Comparator • Sinusoidal oscillators Wave forms generators: • Monostable- Astable multivibrators • Filters with Op-Amp: • active LPF, BPF, HPF filters.
11.2.3	**6**	**Amplifier with transistor kit** The electronic development kit should be installed on to the support as above mentioned. *Minimum Requirements:* Carry out not less than 50% of the following examples of practical exercises: • Transistors: the small signal parameters mathematical model and the “h” parameters model. • The CE amplifier and the main parameters: bias circuit and required components, Zin, Zout and Vgain and Igain. The strain capacities and their effects on the amplification

		bandwidth. • Study of the classical circuits configurations: emitter follower, Darlington, Cascode and Bootstrap connections –The "h" parameters of the connections.. • Amplifiers coupling methods: direct coupling, RC net, transformer coupling. Determining the required coupled stages for a total amplification gain.Use of the "h" parameters for the calculation of the coupled amplifiers. • Differential amplifier features: specific characteristics of this circuit, such as CMRRR, differential gain etc. Applications of this circuit. • Amplifiers: Class A: gain and power efficiency- • Class B: single ended circuit (single and double power supplies circuits); push-pull configuration, power efficiency and cross-distortion conditions. • Complementary symmetry amplifiers: with single and double power supply- • Class C amplifiers: the Q point, R load. Distortion of the signal. Typical applications for this amplifier.
11.2.4	**6**	**Oscillator kit** The electronic development kit should be installed on to the support as above mentioned. *Minimum Requirements:* Carry out not less than 50% of the following examples of practical exercises: • Classical sinusoidal phase shift oscillators: RC, Wien, • Classical sinusoidal LC oscillators: Colpitts, Hartley • Classical sinusoidal oscillator: the Meissner oscillator • Classical sinusoidal Quartz oscillator: frequency stability according to power supply The BJT used in these oscillators. • The Schmitt trigger circuit: parameters, VTH and VTL trigger limits, commutation speed, response to sinwaves, square and triangle waves. • Non sinusoidal oscillators : the Astable multivibrators; • Non sinusoidal oscillators: Monostable multivibrators: control circuit, square weave input operation, synchronization frequency, output pulse duration. • Non sinusoidal oscillators : the Bistable multivibrator: control circuit, maximum commutation frequency etc.
11.2.5	**6**	**Semiconductor kit** The electronic development kit should be installed on to the support as above mentioned. *Minimum Requirements:* Carry out not less than 50% of the following examples of practical exercises: • Semiconductors theory: the PN junction and the diode. • The junction direct and inverse polarization. • The avalanche and the Zener phenomena. • Semiconductors Devices and its characteristics: o diodes (diodes inverse and direct current related to the applied voltages; other diodes parameters o UJT transistors, Zener diodes, PUT-SCR-DIAC and TRIAC. o The V-I curves of the semiconductors, plus the control (3rd. Contact) as a parameter. • Specific applications circuits using these devices: o Rectifying circuits: half and full-wave rectifiers- with central transformer tap, the Graetz circuit. Ripple filters: the "L" and the "PI" configurations using R, C, L components. o The voltage doubler o The clipper and clamping circuits. o UJT as waves generator o Voltage stabilization by using Zener diodes
11.2.6	**6**	**Transistors kit** The electronic development kit should be installed on to the support as above mentioned. *Minimum Requirements:* Carry out not less than 50% of the following examples of practical exercises: • BJT Transistors: NPN and PNP types • Basic BJT equations. • The Q-point: bias and stabilization circuits. The feedback concept and the required components. Determining the Q-point: analytical and graphical methods. BJT operation zones over the Ic = f(VCE) diagram. • Main parameters of the BJT: VBE, gain, Zin, Zout • Classical basic configuration circuits: CE: common-emitter, CC: common collector-

		CB: common base. Characteristics and comparisons among the different configurations: current-gain, voltage-gain, power-gain, Zin, Zout. • FET transistors: J-FET and MOSFET- the JFET amplifier • Comparison among J-FET and MOSFET • The J-FET amplifier , the constant current generator circuit • The A, B, C class amplifiers: the discriminating criteria. The fundamental equations. • Optoelectronics components: photorresistor, photodiode, phototransistor-The curves current vs. luminosity. • Temperature transducers and their characteristics. The R=f(T) curve.

ITEM	Qty..	10 DESCRIPTION AND REQUIREMENTS:
		Lot 12 **LEARNING RESOURCES** ---------- ---------- ---------- - Digital resources to be used in technical and professional schools (students age 15-18)
12.1	**Qty.**	**ITALIAN DIGITAL LEARNING RESOURCES** *General Requirements:* • Digital resources to be used in ITALIAN technical and professional schools (students age 15-18) • Operating according a 2.0 educational scheme that includes presentation using interactive whiteboards, theory, simulations, exercises and self-evaluation tests • Documentation in Italian: - Student practical guide with self-evaluation - Teacher support guide with evaluation sheet - Teaching support documentation including simulations and models - Teaching support software to be used on smart-boards with projector
12.1.1	**1**	**Chemistry Digital Learning Resources** *Topics covered:* Carry out not less than 50% of the following examples of topics: • Trasformazioni fisiche e chimiche della materia • Le leggi fondamentali della chimica • Modelli atomici • Gli stati della materia • Formule chimiche • Massa atomica e mole • Soluzioni • Configurazione elettronica • La tavola periodica • I legami chimici • Struttura delle molecole (VSEPR) • Stati della materia e legami chimici • Classificazione e nomenclatura dei composti inorganici • Le reazioni chimiche • Stechiometria • Equilibrio chimico • Acidi e basi • Ossidoriduzioni • Fondamenti di elettrochimica • Fondamenti di chimica organica • I composti organici • I gruppi funzionali • Materiali di interesse tecnologico e applicativo • Nuovi materiali e biomateriali • Chimica ambientale
12.1.2	**1**	**Mathematics Digital Learning Resources** *Topics covered:* • le operazioni • rapporti e proporzioni • numeri interi, razionali e irrazionali • Insiemi, relazioni, funzioni • Calcolo letterale • Esponenziali e logaritmi • Equazioni • Disequazioni

		• Sistemi lineari di equazioni e disequazioni • Sistemi non lineari di equazioni e disequazioni • Equazioni e disequazioni di 2º grado • Piano cartesiano e rappresentazione grafica di funzioni • La retta • Le coniche • Funzioni • Limiti • Derivate • Integrali • Concetti geometrici fondamentali • Triangoli • Quadrilateri • Rette • Circonferenza e cerchio • Equivalenze • Le grandezze e la loro misura • Le trasformazioni del piano • piani e rette nelle spazio • poliedri • prisma e piramide • solidi di rotazione • Distribuzioni di frequenza • Indicatori di centralità e di dispersione • Distribuzioni di probabilità • Rappresentazioni grafiche
12.1.3	**1**	**Physics Digital Learning Resources** *Topics covered:* Carry out not less than 50% of the following examples of topics: • Misura ed errore di misura • Vettori e scalari • Forze e equilibrio • Moto rettilineo uniforme • Moto rettilineo uniformemente accelerato • Moto circolare • Moto armonico • Forze e leggi di Newton • Sistemi inerziali e non inerziali • Il lavoro e l'energia • La quantità di moto • Il momento di una forza • La gravitazione universale • i gas e la teoria cinetica • i principi della termodinamica • i moti ondulatori • il suono • la luce • carica e campo elettrico • il potenziale e la capacità • la corrente elettrica • la conduzione elettrica • il magnetismo • l'induzione elettromagnetica • le onde elettromagnetiche
12.1.4	**1**	**Italian language for foreigners Digital Learning Resources** *Topics covered:* • la fonetica • l'ortografia • il nome • l'articolo • l'aggettivo

		• il pronome • il verbo • l'avverbio • la preposizione • la congiunzione • la proposizione • i complementi • il periodo • le proposizioni sostantive • le proposizioni relative • le proposizioni complementari indirette • leggere • scrivere • parlare in un contesto lavorativo • la formazione delle parole • lessico di base • lessico tecnico
12.1.5	**1**	**Italian literature Digital Learning Resources** *Topics covered:* Carry out not less than 50% of the following examples of topics: • Verga - La lupa (Vita dei campi) • Verga - Libertà (Novelle rusticane) • Verga - Prefazione a "I Malavoglia" • Verga - Il naufragio della Provvidenza (I Malavoglia) • Verga - La morte di mastro-don Gesualdo (Mastro-don Gesualdo, V, 4) • Pirandello - Il sentimento del contrario (L'umorismo, II) • Pirandello - La carriola (Novelle per un anno) • Pirandello - Nel limbo della vita (Il fu Mattia Pascal, XVIII) • Pirandello - Mattia Pascal cambia nome (Il fu Mattia Pascal) # • Pirandello - L'ingresso dei personaggi (Sei personaggi in cerca d'autore, I) • Pirandello - La «verità» (Così è (se vi pare), III, 7-9) • Pirandello - Il treno ha fischiato (Novelle per un anno) # • Svevo - Il fumo (La coscienza di Zeno, III) • Svevo - La morte del padre (La coscienza di Zeno, IV) • Svevo - Il funerale sbagliato (La coscienza di Zeno, VII) • Svevo - La catastrofe finale (La coscienza di Zeno, VIII) • Saba - La capra • Saba - A mia moglie • Saba - Trieste • Ungaretti - Veglia (L'Allegria) • Ungaretti - In memoria (L'Allegria) • Ungaretti - I fiumi (L'Allegria) • Ungaretti - San Martino del Carso (L'Allegria) • Ungaretti - Soldati (L'Allegria) **#** • Ungaretti - Natale (L'Allegria) **#** • Fenoglio - La spia (Il partigiano Johnny) # • Quasimodo - Alle fronde dei salici • Montale - Non chiederci la parola (Ossi di seppia) • Montale - Meriggiare pallido e assorto (Ossi di seppia) • Montale - Spesso il male di vivere ho incontrato (Ossi di seppia) • Montale - Ti libero la fronte dai ghiaccioli (Le occasioni) • Montale - La casa dei doganieri (Le occasioni) • Calvino - Sotto le rosse mura di Parigi (Il cavaliere inesistente) # • Calvino - Non scenderò più (Il barone rampante) • Calvino - Isaura e Smeraldina (Le città invisibili, I e IV) • Calvino - In una rete di linee che si allacciano (Se una notte d'inverno un viaggiatore) • Sciascia - Western di cose nostre (Il mare colore del vino) # • Tabucchi - La scelta del coraggio (Sostiene Pereira) # • Camilleri - Il patto (Un mese con Montalbano) #
12.1.6	**1**	**English language for foreigners Digital Learning Resources**

		Topics covered: Carry out not less than 50% of the following examples of topics: • Phonetics • Present Simple • Present Continuous • Past Simple • Past Continuous • Used to • Present Perfect • Past Simple o Present Perfect? • Past Perfect • Be going to • Future • Imperative • Question tags • Mode verbs • Passive • Going to • If • Hypothetic sentence • Indirect sentence • Phrasal verbs • Nouns • Pronouns • Articles • Questions • Quantity • Adjective • Comparison • Pronouns • Adverbs • Prepositions • Read • Write • Communicate in a working environment
12.1.7	**1**	**English Glossary Digital Learning Resources** *Topics covered:* Carry out not less than 50% of the following examples of topics: • Glossary foundations • Technical and chemistry glossary: (Introducing Chemistry; Atomic Structure; Bonding; Introducing Materials; Properties of Materials; Using Materials; The Cell; Human Anatomy; Food and Health; Earth; Ecosystems; Energy and Environment; Genes and DNA; Biotechnology and Genetic Engineering; Genetic Engineering and Ethical Concerns) • Glossary of - IT communications: (Information Society; Computers Get Smaller and Smaller; Computer Issues; The "Brain" of the Computer; Storage; Input & Output; Operating Systems; Languages; Software Applications; Networking; Getting Connected; Using The Web; Communicating on the Net; Multimedia and Entertainment on the Net; Shopping and Business Online) • Glossary of surveying and building: (Stone, Bricks and Mortar; Concrete, Steel and Reinforced Concrete; Timber; Ecological Materials; Glass and Plastic; Insulating Materials; Paintings; New Materials; Foundations; Walls; Floors and Stairs; Roofs; The Piping System and Air Conditioning System; The Electrical and Heating System; The Hydraulic and Sewage System; New Sources of Energy; House design in the UK and in the USA; House Construction Methods; Bio architecture; Restoration; Town Planning; Environmental Problems; Green Cities; Road Design and Construction; Public Buildings; History of Architecture)
12.1.8	**1**	**History Digital Learning Resources** *Topics covered:* Carry out not less than 50% of the following examples of topics: • Le origini dell'umanità • Le civiltà della Mesopotamia

		• La civiltà egizia • Le civiltà della Palestina antica • Alle radici della civiltà greca • l mondo delle poleis e le colonie • Sparta e Atene in epoca arcaica • Lo scontro fra la Grecia e la Persia • Dall'apogeo di Atene alla Guerra del Peloponneso • Dalla crisi della polis al mondo di Alessandro Magno • L'Italia antica e le origini di Roma • Roma dalla monarchia alla Repubblica • Le Guerre Puniche e la conquista dell'Oriente • La Repubblica romana dal II al I secolo a.C. • La fine della Repubblica • Dalla Repubblica all'Impero: l'età di Augusto • I primi due secoli dell'Impero • Le antiche civiltà del lontano Oriente: India e Cina • Il cristianesimo e le origini della Chiesa • La crisi del III secolo d.C. • Da Diocleziano alla fine dell'Impero d'Occidente • I regni romano-barbarici e l'Impero bizantino • I Longobardi e l'ascesa del papato • La civiltà araba e l'età dell'oro dell'Impero bizantino • L'impero carolingio • Gli albori di un mondo nuovo • La rinascita del Basso Medioevo • Il papato e l'Impero • Il Trecento e le sue crisi • Il Quattrocento • Le grandi scoperte geografiche • Il Cinquecento • L'età delle guerre di religione • Il Seicento • Il Settecento e l'assolutismo • Il Settecento e le rivoluzioni • Il Risorgimento • L'imperialismo e la seconda rivoluzione industriale • L'inizio del XX secolo • L'età dei nazionalismi • La Prima Guerra Mondiale • L'età dei totalitarisimi • La Seconda Guerra Mondiale • La Guerra fredda • La decolonizzazione • Dal mondo bipolare al mondo unipolare • L'Italia in Europa • Il mondo contemporaneo
12.2	**Qty.**	**ITALIAN PAPER LEARNING RESOURCES** *General Requirements:* • Learning resources used in Italian technical and vocational schools students age 15-18)
12.2.1	**20 copies each**	**ITALIAN LANGUAGE FOR FOREIGNERS** *Topics covered:* Carry out not less than 50% of the following examples of topics: • Libro di testo per la 1 classe della media inferiore • Libro di testo per la 2 classe della media inferiore • Libro di testo per la 3 classe della media inferiore • Libro di testo per la 1 classe dell'istituto professionale / tecnico • Libro di testo per la 2 classe dell'istituto professionale / tecnico • Libro di testo per la 3 classe dell'istituto professionale / tecnico • Libro di testo per la 4 classe dell'istituto professionale / tecnico • Libro di testo per la 5 classe dell'istituto professionale / tecnico

		• Libro di lettura per la 1 classe della media inferiore • Libro di lettura per la 2 classe della media inferiore • Libro di lettura per la 3 classe della media inferiore • Libro di lettura per la 1 classe dell'istituto professionale / tecnico • Libro di lettura per la 2 classe dell'istituto professionale / tecnico • Libro di lettura per la 3 classe dell'istituto professionale / tecnico • Libro di lettura per la 4 classe dell'istituto professionale / tecnico • Libro di lettura per la 5 classe dell'istituto professionale / tecnico
12.2.2	**20 copies each**	**ENGLISH LANGUAGE FOR FOREIGNERS** *Topics covered:* Carry out not less than 50% of the following examples of topics: • Libro di testo per la 1 classe della media inferiore • Libro di testo per la 2 classe della media inferiore • Libro di testo per la 3 classe della media inferiore • Libro di testo per la 1 classe dell'istituto professionale / tecnico • Libro di testo per la 2 classe dell'istituto professionale / tecnico • Libro di testo per la 3 classe dell'istituto professionale / tecnico • Libro di testo per la 4 classe dell'istituto professionale / tecnico • Libro di testo per la 5 classe dell'istituto professionale / tecnico • Libro di lettura per la 1 classe della media inferiore • Libro di lettura per la 2 classe della media inferiore • Libro di lettura per la 3 classe della media inferiore • Libro di lettura per la 1 classe dell'istituto professionale / tecnico • Libro di lettura per la 2 classe dell'istituto professionale / tecnico • Libro di lettura per la 3 classe dell'istituto professionale / tecnico • Libro di lettura per la 4 classe dell'istituto professionale / tecnico • Libro di lettura per la 5 classe dell'istituto professionale / tecnico
12.2.3	**20 copies each**	**HISTORY** *Topics covered:* Carry out not less than 50% of the following examples of topics: • Libro di testo per la 1 classe della media inferiore • Libro di testo per la 2 classe della media inferiore • Libro di testo per la 3 classe della media inferiore • Libro di testo per la 1 classe dell'istituto professionale / tecnico • Libro di testo per la 2 classe dell'istituto professionale / tecnico • Libro di testo per la 3 classe dell'istituto professionale / tecnico • Libro di testo per la 4 classe dell'istituto professionale / tecnico • Libro di testo per la 5 classe dell'istituto professionale / tecnico
12.2.4	**20 copies each**	**CHEMISTRY** *Topics covered:* Carry out not less than 50% of the following examples of topics: • Libro di testo con esercizi per la 1 classe della media inferiore • Libro di testo con esercizi per la 2 classe della media inferiore • Libro di testo con esercizi per la 3 classe della media inferiore • Libro di testo con esercizi per la 1 classe dell'istituto professionale / tecnico • Libro di testo con esercizi per la 2 classe dell'istituto professionale / tecnico • Libro di testo con esercizi per la 3 classe dell'istituto professionale / tecnico • Libro di testo con esercizi per la 4 classe dell'istituto professionale / tecnico • Libro di testo con esercizi per la 5 classe dell'istituto professionale / tecnico
12.2.5	**20 copies each**	**PHYSICS** *Topics covered:* Carry out not less than 50% of the following examples of topics: • Libro di testo con esercizi per la 1 classe della media inferiore • Libro di testo con esercizi per la 2 classe della media inferiore • Libro di testo con esercizi per la 3 classe della media inferiore • Libro di testo con esercizi per la 1 classe dell'istituto professionale / tecnico • Libro di testo con esercizi per la 2 classe dell'istituto professionale / tecnico • Libro di testo con esercizi per la 3 classe dell'istituto professionale / tecnico • Libro di testo con esercizi per la 4 classe dell'istituto professionale / tecnico • Libro di testo con esercizi per la 5 classe dell'istituto professionale / tecnico

12.2.6	**20 copies each**	**MATHEMATICS** *Topics covered:* Carry out not less than 50% of the following examples of topics: • Libro di testo con esercizi per la 1 classe della media inferiore • Libro di testo con esercizi per la 2 classe della media inferiore • Libro di testo con esercizi per la 3 classe della media inferiore • Libro di testo con esercizi per la 1 classe dell'istituto professionale / tecnico • Libro di testo con esercizi per la 2 classe dell'istituto professionale / tecnico • Libro di testo con esercizi per la 3 classe dell'istituto professionale / tecnico • Libro di testo con esercizi per la 4 classe dell'istituto professionale / tecnico • Libro di testo con esercizi per la 5 classe dell'istituto professionale / tecnico
12.2.7	**20 copies each**	**ELECTROTECNICS** *Topics covered:* Carry out not less than 50% of the following examples of topics: • Libro di testo con esercizi per la 1 classe dell'istituto professionale / tecnico • Libro di testo con esercizi per la 2 classe dell'istituto professionale / tecnico • Libro di testo con esercizi per la 3 classe dell'istituto professionale / tecnico • Libro di testo con esercizi per la 4 classe dell'istituto professionale / tecnico • Libro di testo con esercizi per la 5 classe dell'istituto professionale / tecnico
12.2.8	**20 copies each**	**ELECTRONICS** *Topics covered:* Carry out not less than 50% of the following examples of topics: • Libro di testo con esercizi per la 1 classe dell'istituto professionale / tecnico • Libro di testo con esercizi per la 2 classe dell'istituto professionale / tecnico • Libro di testo con esercizi per la 3 classe dell'istituto professionale / tecnico • Libro di testo con esercizi per la 4 classe dell'istituto professionale / tecnico • Libro di testo con esercizi per la 5 classe dell'istituto professionale / tecnico
12.2.9	**20 copies each**	**MECHANICS** *Topics covered:* Carry out not less than 50% of the following examples of topics: • Libro di testo con esercizi per la 1 classe dell'istituto professionale / tecnico • Libro di testo con esercizi per la 2 classe dell'istituto professionale / tecnico • Libro di testo con esercizi per la 3 classe dell'istituto professionale / tecnico • Libro di testo con esercizi per la 4 classe dell'istituto professionale / tecnico • Libro di testo con esercizi per la 5 classe dell'istituto professionale / tecnico

Annexes

Annex A: TEACHER PC and SMART BOARD

Desktop computer

Minimum Requirements:

- Processor: Second generation Intel® Core™ i7–2600, 8MB Cache Memory
- RAM: 8GB DDR3 1333MHz - SDRAM
- Hard Drive: 1,5 TB, 7200rpm, SATA hard drive
- Graphics: 2GB DDR3 graphic card [HDMI, DVI, VGA via adapter]
- Optical drive: Blu-ray writer & SuperMulti DVD burner
- Audios: 5.1 audio board, line-in, line-out, mic-in, mic-out
- Networking: Ethernet card 10/100/1000 Mbps
- Inputs: Keyboard (English and Arabic layout), optical mouse 3 buttons
- Ports: USB2.0, USB3.0, 15-in-1 memory card reader
- Cooling system to operate in ambient temperature up to 45° Celsius
- Operating System: Windows 7 Professional / Linux / OSX
- Preinstalled software: Internet Security Suite
- 30 W, 2 ways and Subwoofer loudspeakers system (10 meters cables)
- Burglar alarm / anti-theft system

Monitors LCD 27"

Minimum Requirements:

- Colour LCD display 27" LED
- Resolution: 1920x1080 native
- Proportion: 16:9

Interactive whiteboard with projector and software

Modern learning device for the use of digital resources

Minimum Requirements: whiteboard

- Compatible with dry-erase markers and easily cleanable
- Digital pens and eraser

Minimum Requirements: projector

- Diagonal size: 65"
- Wall-mount bracket: included and completed with support for projector
- Projector resolution: 1024x768
- Video compatibility: NTSC, PAL and SECAM
- Image synchronization: Auto
- Input/output interface: HDMI™, Composite, S-video, VESA® RGB
- Remote control
- Connection cables
- Burglar alarm / anti-theft system

Minimum Requirements: software

- Upload applications
- Capture, save and print select/entire window on the board
- OS: Microsoft Windows® and Mac OS X
- Manuals, guidelines, technical documentation, demos and tutorials

Annex B: STUDENT PCS

Set of 24 Desktop computer

Minimum Requirements:

- Processor: Second generation Intel® Core™ i5–2400, 6MB Cache Memory
- RAM: 8GB DDR3 1333MHz - SDRAM
- Hard Drive: 1 TB, 7200rpm, SATA hard drive
- Graphics: 2GB DDR3 graphic card [HDMI, DVI, VGA via adapter]
- Optical drive: Blu-ray player & SuperMulti DVD burner
- Audios: 5.1 audio board, line-in, line-out, mic-in, mic-out
- Networking: Ethernet card 10/100/1000 Mbps
- Inputs: Keyboard (English and Arabic layout), optical mouse 3 buttons
- Ports: USB2.0, USB3.0, 15-in-1 memory card reader
- Operating System: Windows 7 Professional / Linux
- Preinstalled software: Internet Security Suite
- Burglar alarm / anti-theft system

Set of 24 Monitors LCD 21,5"

Minimum Requirements:

- Colour LCD display 21,5" LED
- Resolution: 1920x1080 native
- Proportion: 16:9

Annex C: PLC and AUTOMATION WORKSHOP

- Dimensions of the PLC and Automation Workshop are about 12m(w) x 11,5m(l) (layout can be requested to the contracting authority)

General Requirements:

- The items of this lot should be delivered installed, connect to required utilities (water, sewage, electricity, gas) and functionally operational in the Electrical Domestic Installation Workshop
- Manuals, guidelines, technical documentation, demos and tutorials:
  - in digital format (CD or DVD)
  - SO: OSX and/or Linux and/or Windows
  - in English and/or Italian and/or Arabic
  - in three copies
- 4 hours demo to teachers demonstrating most of the functionalities of the equipment

WORKBENCHES for PLC

Student vertical workbench for PLC

The student workbench will have on the side a PCs desk.
The student workbench should accommodate two students working at the same time ensuring comfortable and safe operations.
The student workbench should be equipped with AC and DC cockpit, digital multi-meter with cables and terminals and other instruments, devices and connections as required by the exercises.

Minimum Requirements:

- Rigid and solid structure in metal tubular profile.
- Top made of highly compressed, multi-layer fine chipboard and resistant to scratches.
- Vertical frame to fix panels for practical exercises with easy assembling and removal.
- 4 drawers with lock under the top.
- Power supply cockpit with safety - and control element should include at least:
  - Safety - and control element 400V AC, 230V AC, 24V DC
  - Key switch
  - On/Off-switches
  - Emergency stop
  - Circuit Breaker 3x16A disconnection current 30mA (earth protection)
- Power supply cockpit with digital multi-meter:
  - 3¾-digital multi-meter; resolution: ±4 000 Digits
  - Measurement classification CATII-1000V
  - Voltage and current measuring ranges: 400mV–1000V DC, 400mV–1000V AC; 40µA–10A DC; 40µA-10A AC
  - Measurement ranges: 100mohm-40Mohm
  - Capacitance measuring range 1pF to 200µF
  - Frequency measuring range 0.001Hz to 500kHz
  - Duty cycle measurements
  - Continuity, diode and transistor testing
  - Automatic range selection and battery shut-off, min./max. and data hold function
- Installation, user and maintenance manual

Stool for Students

Ergonomic and comfortable stool without arms and according to the height of the benches

Minimum Requirements:

Rigid (without rotation, wheels and adjustable elements)
Heavy duty: strong and secure construction

Sliding door storage unit

Sliding door storage unit of coordinated design with the workbench to accommodate panels with practical exercises under completion

Minimum Requirements:

- Dimension about: 180Hx60Wx95L cm
- Lockable
- Heavy duty type
- Sliding door

KITS for PRACTICAL EXERCISE

General Requirements: for each kit

5. Box with equipment to carry out the practical exercises
6. Box with spare parts to repeat the practical exercises of the kit a minimum of 30 times [only wear and tear should be considered]
7. Vertical panel to wire practical exercises
8. Commercial datasheet for each component and material included in the box
9. List of practical exercises (title and description) that can be carried out
10. Documentation in Arabic and/or Italian and/or English for each practical exercise
    - Safety recommendations during the preparation, execution and closure of practical exercises
    - Student practical guide with self-evaluation for each practical exercise
    - Teacher support guide with evaluation sheet for each practical exercise
    - Teaching support documentation including simulations and models
    - Teaching support software to be used on smart-boards with projector
    - Commercial and technical documentation (different brands, suppliers) of the components and materials included in the kit

Industrial PLC training kit

General Requirements:

- AS-Interface power supply
- AS-Interface I/O connection unit (8 Input & 8 Output)
- AS-Interface control unit
- STEP 7 training package (or equivalent)
- PLC Siemens Series S7-300 (or equivalent)
- Interactive Training Software

Minimum Requirements:

Carry out not less than 50% of the following examples of practical exercises:

- Cabling the PLC system and components to realize a networking app with AS-Interface
- Connect communication cables between PC and PLC and between PLCs
- Realize demo systems to simulate 4 industrial automation systems (examples: food production line, water distillation stations, marble and granite polishing machine, packaging machine, etc.)
- Install and check the functioning of sensors to measure:
    - position (optical, encoders, proximity sensors)
    - angular-position sensors (steering-angle and angle sensor)
    - velocity transducers (dynamo tachometric, alternator tachometric)
    - rotational-speed sensor (angular potentiometer, Hall speed sensor)
    - acceleration sensors (piezoelectric, accelerometer)
    - force transducers (resistance strain-gages, load cells)
    - pressure sensors (differential pressure, absolute pressure, high pressure)
    - level, flow, magneto-inductive, microwave, calorimeter transducers
    - temperature transducers (thermistors, thermocouples)
    - air and liquid temperatures
- Install and check the functioning of actuator system:
    - AC and DC motors
    - Servo Machine - Brushless and stepper control axis
    - Electro-valves
    - Electro-pneumatic valves
    - Lights, buzzer, and other loads
- Programming the PLC in order to manage the industrial automation systems using different languages (LDR, STL, FCH)
- Read and interpret practical guides

DIGITAL LEARNING RESOURCES for PLC LAB

Digital resources for PLC Lab in technical and professional schools (students age 15-18).

General Requirements:

- Operating according a 2.0 educational scheme that includes presentation using interactive whiteboards, theory, simulations, exercises and self-evaluation tests
- List of digital resources (title and description)
- Online e-catalogue of electrical products and materials with updates
- Documentation in Arabic and/or Italian and/or English:
    - Student practical guide with self-evaluation
    - Teacher support guide with evaluation sheet
    - Teaching support documentation including simulations and models
- Teaching support software to be used on smart-boards with projector

GRAFCET language

Digital resources in GRAFCET Language for technical and professional schools

Minimum Requirements:

- Set of 24 licenses
- Differences between various modes of programming a PLC
- Configuring a GRAFCET
- Graphic representation of the language elements
- Graphic representation of sequential structures
- Case studies

PLC Programming

Digital resources in PLC Programming for technical and professional schools

Minimum Requirements:

- Set of 24 licenses
- Programmable logic controllers
- Project organization
- Programming languages in accordance with IEC 61131
- Link-orientated programming languages
- Sequential function chart
- Structured text
- Sequence programming project

Sensors

Digital resources in Sensors for technical and professional schools covering

Minimum Requirements:

- Set of 24 licenses
- Simple motion control encoder on cylinders
- Use of pressure sensors to improve safety in pneumatic systems
- Use of flow sensors to improve safety, output signals from sensors
- Technology of NO / NC connection
- Switching functions
- Sensors for detecting final position
- Sensors for pressure measurement
- Sensors for flow measurement
- Detection of objects in industrial practice
- Switching characteristics of proximity sensors, hysteresis
- Connection technology: two wire, three wire and four wire
- Inductive sensors: Construction and manner of functioning
- Optical, Capacitive, Ultrasound sensors

Servo machine, brushless and stepper control axis

Digital resources in Servo controllers for technical and professional schools

Minimum Requirements:

- Set of 24 licenses
- Cabling and control electrical motors
- Cabling and control servo machines
- Cabling and control step motors

F ANNEXES الملاحق

I ANNEX - PRICE LIST

Contract title: Supply of electrical laboratory equipment, services and digital learning resources for the ITEC in Fayoum in the frame of the Italian Egyptian Debt for development SWAP program.

Contract Authority: Education Development Fund, 13 Haroun St. – Dokki – Giza – Egypt, To the Attention of Dr. Mohammad Megahed

Tenderer: <denomination/name of the tenderer>

The offered DAP price should include the manufacture, the assembling, the delivery, the installation, the training and the after-sales services of each lot offered.

List of the lots	***Tenderer's offered DAP price in EGP ****
Lot 1: Language lab	
Lot 2: CAD CAE lab	
Lot 3: Chemistry lab	
Lot 4: Electrical residential installations	
Lot 5: Electrical installation materials	
Lot 6: Electrical equipment	
Lot 7: Electronic motor drivers	
Lot 8: Electrical industrial installations	
Lot 9: Home-building automation kit	
Lot 10: Photovoltaic kit	
Lot 11: Discrete electronic components	
Lot 12: Learning resources	

*** insert the sentence "not-offered" for the lots not offered by the tenderer;**

Done at: [……], [../../..] by [name]

On behalf of [……] [tenderer's stamp]

II ANNEX - DELIVERY SCHEDULE

Contract title: Supply of electrical laboratory equipment, services and digital learning resources for the ITEC in Fayoum in the frame of the Italian Egyptian Debt for development SWAP program.

Contract Authority: Education Development Fund, 13 Haroun St. – Dokki – Giza – Egypt, To the Attention of Dr. Mohammad Megahed

Tenderer: <denomination/name of the tenderer>

Maximum length of the delivery period in calendar days for each lot offered.

List of the lots	***Contracting Authority expected maximum delivery time ****	***Tenderer's offered delivery time *, *****
Lot 1: Language lab	60 calendar days	
Lot 2: CAD CAE lab	60 calendar days	
Lot 3: Chemistry lab	120 calendar days	
Lot 4: Electrical residential installations	60 calendar days	
Lot 5: Electrical installation materials	60 calendar days	
Lot 6: Electrical equipment	120 calendar days	
Lot 7: Electronic motor drivers	120 calendar days	
Lot 8: Electrical industrial installations	120 calendar days	
Lot 9: Home-building automation kit	120 calendar days	
Lot 10: Photovoltaic kit	120 calendar days	
Lot 11: Discrete electronic components	120 calendar days	
Lot 12: Learning resources	120 calendar days	

*** calendar days from the signing of the contract;**

**** insert the sentence "not-offered" for the lots not offered by the tenderer;**

Date: <gg/mm/2012>

Signature: <name of the Tenderer's representative>

Stamp of the Tenderer

III ANNEX - PERFORMANCE BANK GUARANTEE FORMAT

< To be completed on letterhead paper of the financial institution >

For the attention of Education Development Fund, 13 Haroun St. – Dokki – Giza – Egypt, referred to below as the “Contracting Authority”

Subject: Guarantee No…

Performance Guarantee for the full and proper execution of the contract “Supply of electrical laboratory equipment, services and digital learning resources for the ITEC in Fayoum in the frame of the Italian Egyptian Debt for development SWAP program”.

We the undersigned, <name and address of financial institution>, hereby irrevocably declare that we guarantee as primary obligor, and not merely as a surety on behalf of <Contractor's name and address>, hereinafter referred to as “the Contractor”, the payment to the Contracting Authority of <amount of the performance guarantee>, representing the Performance Guarantee mentioned in the General Conditions of the contract “Supply of electrical laboratory equipment, services and digital learning resources for the ITEC in Fayoum in the frame of the Italian Egyptian Debt for development SWAP program” concluded between the Contractor and the Contracting Authority, hereinafter referred to as “the Contract”.

Payment shall be made without objection or legal proceedings of any kind, upon receipt of your first written claim (sent by registered letter with confirmation of receipt) stating that the Contractor has failed to perform its’ contractual obligations fully and properly and that the Contract has been terminated. We shall not delay the payment, nor shall we oppose it for any reason whatsoever. We shall inform you in writing as soon as the payment has been made.

We accept notably that no amendment to the terms of the Contract can release us from our obligation under this guarantee. We waive the right to be informed of any change, addition or amendment to the Contract.

We note that the guarantee or what remains of it will be released within 7 days of the issue of the final acceptance certificate (except for such part as may be specified in the Special Conditions in respect of after sales service). The law applicable to this guarantee shall be that of Egypt. Any dispute arising out of or in connection with this guarantee shall be referred to the courts of Egypt.

This guarantee shall enter into force and take effect upon its’ signature.

Name: …… Position: ……

Signature: ……..

Date: <Date>

IV ANNEX - ADVANCE BANK GUARANTEE FORMAT

[On letterhead paper of the financial institution providing the guarantee]

Contract title: “Supply of electrical laboratory equipment, services and digital learning resources for the ITEC in Fayoum in the frame of the Italian Egyptian Debt for development SWAP program”.

The undersigned, [name, financial institution name, address], hereby declare that we will guarantee, not merely jointly and severally, but as principal debtor, to Education Development Fund, 13 Haroun St. – Dokki – Giza – Egypt, on behalf of [Supplier’s name and address], the payment of [indicate the amount of the advance / balance], corresponding to the advance / balance as mentioned in the Special Conditions without dispute, on receipt of a first written request from the recipient.

The guarantee will enter into force and take effect from the [indicate the date of payment of the advance / balance].

We note that you will release the guarantee and notify us of the fact at the latest [within sixty days of provisional / final acceptance of the goods / within thirty days of receipt of the final statement].

Any dispute concerning this guarantee shall be governed by the Egyptian law and fall within the competence of the courts of Egypt.

Name: …… Position: ……

Signature: ……..

Date: <Date>

V ANNEX - TENDER BANK GUARANTEE FORMAT

< To be completed on letterhead paper of the financial institution >

For the attention of Education Development Fund, 13 Haroun St. – Dokki – Giza – Egypt referred to below as the “Contracting Authority”

<Date>

Contract title: “Supply of electrical laboratory equipment, services and digital learning resources for the ITEC in Fayoum in the frame of the Italian Egyptian Debt for development SWAP program”.

We, the undersigned, <name and address of financial institution>, hereby irrevocably declare that we will guarantee as primary obligor, and not merely as a surety on behalf of <Tenderer's name and address> the payment to the Contracting Authority of <amount of the tender guarantee according the following table>, this amount representing the guarantee referred to in article 3.6 c) of the Instructions to Tenderers.

Payment shall be made without objection or legal proceedings of any kind, upon receipt of your first written claim (sent by registered letter with confirmation of receipt) if the Tenderer does not fulfil all obligations stated in its’ tender. We shall not delay the payment, nor shall we oppose it for any reason whatsoever. We shall inform you in written form as soon as the payment has been made.

The law applicable to this guarantee shall be that of Egypt. Any dispute arising out of or in connection with this guarantee shall be referred to the courts of Egypt.

The guarantee will enter into force and take effect from the submission deadline of the tender and will have a duration of <number of days> calendar days from this date as for articles 25 of the Instructions to Tenderer.

Name: …… Position: ……

Signature: ……..

Date: <Date>

Amount of the tender guarantee for each lot offered.

List of the lots	*Value of the tender guarantee EGP for each Lot*
Lot 1: Language lab	**10,000**
Lot 2: CAD CAE lab	**5,000**
Lot 3: Chemistry lab	**25,000**
Lot 4: Electrical residential installations	**20,000**
Lot 5: Electrical installation materials	**25,000**
Lot 6: Electrical equipment	**10,000**
Lot 7: Electronic motor drivers	**30,000**
Lot 8: Electrical industrial installations	**10,000**
Lot 9: Home-building automation kit	**20,000**
Lot 10: Photovoltaic kit	**5,000**
Lot 11: Discrete electronic components	**5,000**
Lot 12: Learning resources	**10,000**

VI ANNEX - RETENTION MONEY BANK GUARANTEE FORMAT

< To be completed on letterhead paper of the financial institution >

Education Development Fund

13 Haroun St. – Dokki – Giza - Egypt

We the..... (hereinafter referred to as "the Guarantor").

have been informed that:

(A) The Contracting Authority represented by the Education Development Fund, hereinafter referred to as "the Purchaser", intends to sign a contract with hereinafter referred to as "the Supplier".

(B) The Supplier has undertaken, in pursuance of the Contract No. signed on to supply with spare parts and services, hereinafter called "the Contract".

(C) It has been stipulated in the said Contract that the Supplier shall furnish you with a Bank Guarantee by a first class Bank for a sum specified therein as security for compliance with the Supplier performance obligations in accordance with the Contract.

(D) The Supplier has committed himself, in case of necessity for any prorogation due to the repairing of defects pointed out by the Purchaser, within the warranty period, to instruct the Bank to extend the validity of the bond and the relevant expiry date.

THEREFORE WE hereby irrevocably undertake to be Guarantors and responsible to you, on behalf of the Supplier, up to a total amount of EGP ( ), equal to 10% of the Contract value, and to pay you, upon your first written demand, through Bank channels, declaring the Supplier to be in default under the Contract and without cavil or argument, any sum or sums within the limits of EGP ( ) as aforesaid, without your need to prove or show grounds or reasons for your demand of the sum specified therein.

This letter of guarantee will become effective automatically on the date of transferring the sum of EGP ( ) to the Supplier's bank account and shall expire upon the date of the "Certificate of Final Testing " issued and signed by the Purchaser and in any case on . (N.B.: Not later than the date calculated as follows: date of Certificate of conformity at final destination and of delivery + 730 warranty days + 90 days for the issuing of Certificate of Final Testing + 90 days bank's mailing time).

Should we receive no claim from you by the expiry date of this guarantee our liability will become automatically null and void.

This undertaking is governed by Egyptian law, place of jurisdiction is the courts of Egypt.

SIGNATURE AND SEAL OF THE GUARANTOR,

Date ..... Address .....

VII ANNEX - TENDER SUBMISSION FORM

One signed form shall be supplied (for each lot, if the tender procedure is divided into lots), together with the number of copies specified in the Instruction to Tenderers. The attachments to this submission form (i.e. declarations, statements, proofs) may be in original or copy. If copies are submitted, the originals must be dispatched to the Contracting Authority upon request. For economical and ecological reasons, we strongly recommend that you submit your files on paper-based materials (no plastic folder or divider). We also suggest you use double-sided print-outs as much as possible

An economic operator may, where appropriate and for a particular contract, rely on the capacities of other entities, regardless of the legal nature of the links which it has with them. It must in that case prove to the Contracting Authority that it will have at its' disposal the resources necessary for the performance of the contract, for example by producing an undertaking on the part of those entities to place those resources at its' disposal. Such entities, for instance the parent company of the economic operator, must respect the same rules of eligibility and notability that of nationality, as the economic operator.

VII.1 Tenderer's identification

Name/Denomination of Tenderer:

Country of registration:

Address:

Telephone (land line):

Fax:

Telephone (mobile):

e-mail:

Name/Denomination of the representative in Egypt:

Address:

Telephone (land line):

Fax:

Telephone (mobile):

e-mail:

VII.2 Contact person (for this tender)

Name:

Position in the tenderer organisation:

Address:

Telephone (land line):

Fax:

Telephone (mobile):

e-mail:

VII.3 Economic and financial capacity

Please complete the following table of financial data based on your annual accounts and your latest projections. If annual accounts are not yet available for this year or last year, please provide your latest estimates, clearly identifying estimated figures in italics. Figures in all columns must be on the same basis to allow a direct, year-on-year comparison to be made (or, if the basis has changed, an explanation of the change must be provided as a footnote to the table). Any clarification or explanation which is judged necessary may also be provided.

Financial data	***2 years before last year***	***1 year before last year***	***Last year***	***This year***
Annual turnover, excluding this contract				
Cash and cash equivalents at the beginning of the year				
Short term liabilities at the beginning of the year				

VII.4 Staff resources

Please provide the following personnel statistics for the current year and the two previous years.

Average manpower	*Year before last year*		*Last year*		*This year*	
	Overall	*Total for fields related to this contract*	*Overall*	*Total for fields related to this contract*	*Overall*	*Total for fields related to this contract*
Permanent						
Other staff						
Total						

VII.5 Experience

Please complete a table using the format below to summarise the major relevant supplies carried out in the course of the past 3 years by the legal entity making this tender. The number of references to be provided must not exceed 15 for the entire tender.

Ref # ____ Project title

- Overall supply value (EUR)
- Country of delivery
- Client legal entity
- Contact person at the client
- Detailed description of supply (max 300 words)
- Detailed description of services provided (max 200 words)

VII.6 Lots submitted

In response to your letter of invitation to tender for the above contract we submit our offer for the following lots:

List of the lots	***Lots offered****
Lot 1: language lab	
Lot 2: CAD CAE lab	
Lot 3: chemistry lab	
Lot 4: electrical residential installations	
Lot 5: electrical installation materials	
Lot 6: electrical equipment	
Lot 7: electronic motor drivers	
Lot 8: electrical industrial installations	
Lot 9: home-building automation kit	
Lot 10: photovoltaic kit	
Lot 11: discrete electronic components	
Lot 12: learning resources	

*** insert the sentence "not-offered" for the lots not offered by the tenderer;**

*** insert YES for the lots offered by the tenderer**

VII.7 Tenderer's declaration

< To be completed on letterhead paper of the Tenderer >

Education Development Fund

13 Haroun St. – Dokki – Giza - Egypt

Place and date: _____

In response to the invitation to tender for the Supply of electrical laboratory equipment, services and digital learning resources for the ITEC in Fayoum in the frame of the Italian Egyptian Debt for development SWAP program we, the undersigned hereby declare that:

- We have examined and accept in full the contents of the dossier for Invitation to Tender for the Supply of electrical laboratory equipment, services and digital learning resources. We hereby accept its' provisions in their entirety, without reservation or restriction. In particular we have carefully read and we accept the assessment and evaluation of the Tenders as well as the scoring system of the tenders (Articles 18 and 19 of the Instruction to Tenderers) considering economic (the DAP price) and technical criteria (Origin, Compliance to decision N. 768/2008/EC, number of practical exercises, Language and Content of digital resources).
- This tender is valid for a period of 120 calendar days from the final date for submission of tenders, i.e. until [../../2013].
- If our tender is accepted, we undertake to provide a performance guarantee of 5% as required by the Special Conditions.
- Our company has the following nationality: [……..]

We are making this tender in our own right. We confirm that we are not tendering for the same contract in any other form.

We are not in any of the situations excluding us from participating in contracts which are listed in Article 3.5 of the Instructions to Tenderers. In the event that our tender is successful, we undertake, if required, to provide the proof under the law of the country in which we are established that we do not fall into these exclusion situations. The date on the evidence or documents provided will be no earlier than 1 year before the date of submission of the tender and, in addition, we will provide a statement that our situation has not altered in the period which has elapsed since the evidence in question was drawn up.

We also undertake, if required, to provide evidence of the financial and economic standing and the technical and professional capacity according to the selection criteria for this call for tender specified in the Instruction to Tenderers.

We also understand that if we fail to provide the proof/evidence required, within 30 calendar

days after receiving the notification of award, or if the information provided is proved false, the award may be considered null and void.

We also declare that:

- we have well examined the Special Conditions, the General Conditions, the Technical Specifications and any other documents corresponding to the Offer, and we consider these documents, as above listed, sufficient for the Tender compilation and for the successive widening of the requested supply, in respect of each prescription described in those documents;
- we accept the delivery and payment terms indicated in the Special Conditions;
- our prices include everything indicated in the Tender Documents, consequently our offer includes also what is not expressly described in the Tender Documents but will result necessary to have a complete supply.

We agree to abide by the ethics clauses in Article 26 of the Instructions to Tenderers and, in particular, have no conflict of interests or any equivalent relation in that respect with other Tenderers or other parties in the tender procedure at the time of the submission of this application.

We will inform the Contracting Authority immediately if there is any change in the above circumstances at any stage during the implementation of the tasks.

We also fully recognise and accept that any inaccurate or incomplete information deliberately provided in this application may result in our exclusion from this and other contracts funded by EDF.

We authorise the Contracting Authority to request information about the references provided to the person appointed in Annex VII.2.

We note that the Contracting Authority is not bound to proceed with this invitation to tender and that it reserves the right to award only part of the contract or to cancel the tender procedure. It will incur no liability towards us should it do so.

Yours faithfully

Name and first name: <……>

Duly authorised to sign this tender on behalf of:

<…… …>

Place and date: <……..……..>

Stamp of the firm/company:

This tender includes the following annexes: <list of annexes provided by the tenderer>

VIII ANNEX - GLOSSARY OF TERMS

Administrative order: any instruction or order issued by the Contracting Authority to the Supplier in writing regarding the provision of the supplies

Agent Bank: the Bank to which the Education Development Fund conferred a mandate to execute the payments.

Bill of quantities: the document containing an itemized breakdown of the items and tasks to be carried out in a unit-priced contract, indicating a quantity for each item and the corresponding unit price.

Bond/Guarantee: for the terms of this Tender, is the guarantee for a debt or an advance received, in which an issuer, a bank or a bonding company, guarantees to honour the debt of a supplier and it is obliged to pay the creditor at a later date if so requested. A bond is a formal contract to repay borrowed money by a third guarantor in case of failure by the original debtor.

Supplies/goods/supplies: all items which the Supplier is required to supply to the Contracting Authority, including, where necessary, service such as installation, testing, commissioning, provision of expertise, supervision, maintenance, repair, training and other such obligations connected with the items to be provided under the contract.

Conflict of interest: any event influencing the capacity of a candidate, Tenderer or Supplier to give an objective and impartial professional opinion, or preventing him, at any moment, from giving priority to the interests of the Contracting Authority. Any consideration related to possible contracts in the future or conflict with other commitments, past or present, of a candidate, Tenderer or Supplier, or any conflict with his own interests. These restrictions also apply to subcontractors and employees of the candidate, Tenderer or Supplier.

Contract value: the sum stated in the contract representing the initial estimate payable for carrying out the supplies, or such other sum as ascertained at the end of the contract as due under the contract.

Contracting Authority: the party which concludes the contract for and on behalf of the recipient/purchaser. It can be a Governmental Department, a juridical or a natural person appointed by the Purchaser according to the Law of his Government, who is responsible for the management and/or monitoring of the fulfilment of the Supply Contract. In this Tender procedure the Contracting Authority is the Education Development Fund.

Day: calendar day.

Evaluation committee: a committee made up of an odd number of voting members (at least three) appointed by the Contracting Authority and possessing the technical, linguistic and administrative capacities necessary to give an informed opinion on tenders. The Committee is in charge to perform the Tender's examination, evaluation and provisional awarding. A representative of the Donor (the "Italian Expert") may be invited to sit on the

committee as a non-voting member observer.

Final test certificate: the certificate or the certificates are issued by the Contracting Authority to the Contractor upon the expiring of the technical warranty period and they certify that the contract obligations have been fulfilled by the Contractor.

General Conditions: the general conditions comprising clauses of an administrative, financial, legal and technical nature relating to the performance of contracts.

General damages: the sum not stated beforehand in the contract, which is awarded by a court, or agreed between the parties, as compensation payable to an injured party for a breach of the contract by the other party.

In writing: this includes any hand-written, typewritten or printed communication, including telex, cable and facsimile transmissions.

Liquidated damages: the sum stated in the contract as compensation payable by the Supplier to the Contracting Authority for failure to complete the contract or part thereof within the periods under the contract, or as payable by either parties to the other for any specific breach identified in the contract.

Most economically advantageous tender: the tender deemed to be the best by the criteria laid down for the contract in question, e.g. quality, technical properties, aesthetic and functional qualities, after-sales service and technical assistance, delivery date or performance period, the price or lowest price. These criteria must be published in the procurement notice or stated in the tender dossier.

Purchaser: is a Government, or a juridical or natural person, that concludes the Supply Contract, or in whose behalf the Supply Contract is concluded by the Contracting Authority. In this Tender procedure the Purchaser is the Education Development Fund;

Public Company: is a company, normally owned by many shareholders, which is entitled to raise funds and capital by issuing Securities, as stock or bonds, for sale to the general public in an open market, it has normally permission to offer its Securities through the Stock Exchange where it is registered.

Special Conditions: the Special Conditions issued by the Contracting Authority as part of the invitation to tender, comprising amendments to the general conditions, special contractual clauses and a technical annex setting out the technical specifications.

State Company, State-owned Company, Government-owned Corporation: is a company created by a Government / State, to perform commercial activities under control of a governmental Entity or Authority which has power of decisions.

Successful Tenderer: the Tenderer selected following a contract award procedure.

Supplier/Contractor: the successful Tenderer once the contract has been signed by all parties concerned.

Supply contract: a contract between a Supplier and the Contracting Authority for the purchase, lease, hire or hire-purchase, with or without an option to buy, of goods. It may also cover such tasks as installation, servicing, repairs, training and after-sales service, etc.

Technical Committee: the Committee ~~Company~~ in charge to certify the conformity of services rendered with regard to the shipment, transport, and the final delivery of supplies and the due compliance with the purchasing procedures managed by the Contracting Authority.

Tender price: the sum stated by the Tenderer in his tender for carrying out the contract.

Tenderer: any natural or legal person or group of such persons submitting a tender with a view to concluding a contract.

Time limits: the periods which shall begin to run from the day following the act or event which serves as their starting point. Should the last day of the period fall upon a non-working day in the country of the Contracting Authority, the period shall expire at the end of the first working day following the last day of the period.

IX ANNEX - LIST OF INCOTERMS

EXW - EX WORKS (named place)

FCA - FREE CARRIER (named place)

CPT - CARRIAGE PAID TO (named place of destination)

CIP - CARRIAGE AND INSURANCE PAID to (named place of destination)

FAS - FREE ALONGSIDE SHIP (named port of shipment)

FOB - FREE ON BOARD (named port of shipment)

CFR - COST AND FREIGHT (named port of destination)

CIF - COST INSURANCE AND FREIGHT (named port of destination)

DAT - DELIVERED AT TERMINAL (type of terminal, city and country)

DAP - DELIVERED AT PLACE (named place of destination)

DDP - DELIVERED DUTY PAID (named place of destination)

X ANNEX - EVALUATION REPORT

Contract title: “Supply of electrical laboratory equipment, services and digital learning resources for the ITEC in Fayoum in the frame of the Italian Egyptian Debt for development SWAP program”.

Annexes:

A) Tender opening report and its’ annexes

B) Administrative compliance grid

C) Technical compliance grid and evaluation grids

X.1 Timetable

	Date	***Time***	***Venue***
Preparatory session			
Deadline for the submission of tenders			
Tender opening session			
< Meeting 1 >			
< Meeting 2 >			
< Meeting .. >			

X.2 Observers

Name	***Representing***

X.3 Evaluation

X.3.1 Preparatory session

The Chairperson informed the Evaluation Committee of the scope of the proposed contract, identified the organisations responsible for preparing the tender dossier, and summarised the essential features of the tender procedure to date, including the evaluation grid published as part of the tender dossier.

X.3.2 Tender opening session

The Tender opening report is attached to this report. The Evaluation Committee only considered those tenders, which were found to be suitable for further evaluation following

the tender opening session.

X.3.3 Administrative compliance

The Evaluation Committee used the administrative compliance grid included in the tender dossier to assess the compliance of each of the tenders with the administrative requirements of the tender dossier.

[[1]With the agreement of the other Evaluation Committee members, the Chairperson wrote to the following Tenderers whose tenders required clarification, offering them the possibility to respond by <within a reasonable time limit fixed by the evaluation committee> (all correspondence is attached in the Annex indicated):

Tender envelope No	***Tenderer's name***	***Summary of exchange of correspondence***

The completed Administrative compliance grid is attached. On the basis of this, the Evaluation Committee decided that the following tenders were administratively non-compliant and should not be considered further:

Tender envelope No	***Tenderer's name***	***Reason***

[1] Keep the paragraph if clarifications were requested for the submissions from any Tenderers otherwise delete the entire paragraph included the table

X.3.4 Technical evaluation

The Evaluation Committee used the Technical evaluation grids included in the tender dossier (a – technical compliance; b – origin of the goods; c – compliance to decision 768/2008 EC; d – practical activities; e – learning resources) to assess, evaluate and score each items of the lots offered by the Tenderers with the technical requirements of the tender dossier. The completed Technical evaluation grids are attached.

[[2] With the agreement of the other Evaluation Committee members, the Chairperson wrote to the following Tenderers whose tenders required clarification, offering them the possibility to respond by <within a reasonable time limit fixed by the evaluation committee> (all correspondence is attached in the Annex indicated):

Tender envelope No	***Tenderer's name***	***Summary of exchange of correspondence***

After discussing the individual conclusions of the Evaluators, the Evaluation Committee concluded that the following tenders were technically compliant and scored as following:

Lot No and title		***Points scored***					
Tender envelope No	***Tenderer's name***	***a***	***b***	***c***	***d***	***e***	***total***

[2] Keep the paragraph if clarifications were requested for the submissions from any Tenderers otherwise delete the entire paragraph included the table

On the basis of the Evaluation the Committee decided that the following tenders did not reach the minimum threshold score and should not be considered further:

Tender envelope No	***Tenderer's name***	***Reason***

X.3.5 Financial evaluation

The Evaluation Committee checked the technically compliant tenders for arithmetic errors.

If any arithmetic errors were found:

As stated in the Instructions to Tenderers, arithmetic errors were corrected on the following basis:

- Where there was a discrepancy between amounts in figures and in words, the amount in words prevailed.
- Where there was a discrepancy between a unit price and the total amount derived from arithmetic calculation, the maximum value prevails, except where the Evaluation Committee agreed that there was an obvious error, in which case the total amount as quoted prevails.

The following arithmetic corrections were made:

Tender envelope No	***Tenderer's name***	***Lot No and name***	***Stated financial offer (EGP)***	***Arithmetically corrected financial offer (EGP)***

The arithmetically corrected financial offers were compared to identify the technically

compliant tender with the lowest price.

[[3] The tender submitted by <Tenderer name> appeared to have an abnormally low price in relation to the market for the supplies in question. Consequently, the Chairperson of the Evaluation Committee wrote to <Tenderer name> to obtain a detailed explanation for the low price proposed.

On the basis of the response of the Tenderer, the Evaluation Committee decided to

- EITHER accept the tender because [the Tenderer used an economic production method/the nature of the technical solution used/the financial offer reflected exceptionally favourable conditions available to the Tenderer].
- OR reject the tender as the abnormally low price could not be justified on objective grounds.

The final score (EGP/points) of the tenders which were not excluded during the evaluation was as follows:

Lot No and title				
Tender envelope No	***Tenderer's name***	***Stated or Arithmetically corrected financial offer (EGP)***	***Technical points***	***Final Score***

X.3.6 Ranking

The Evaluation Committee on the base of the technical and financial evaluation ranked the tenders that are compliance administratively and technically, being the first with the lowest score.

Lot No and title			
Rank	***Tender envelope No***	***Tenderer's name***	***Final Score***

[3] keep the paragraph if a tender appears to have an abnormally low price in relation to the market for the supplies in question otherwise delete the entire paragraph included the table

1			
2			
3			
4			
5			

X.4 Final recommendations

The Evaluation Committee recommends the Contracting Authority to award the lots to the tenderers scoring first in the ranking of the offers:

List of the lots	***Tender envelope No***	***Tenderer's name***	***Stated or Arithmetically corrected financial offer (EGP)***
Lot 1: language lab			
Lot 2: CAD CAE lab			
Lot 3: chemistry lab			
Lot 4: electrical residential installations			
Lot 5: electrical installation materials			
Lot 6: electrical equipment			
Lot 7: electronic motor drivers			
Lot 8: electrical industrial installations			
Lot 9: home-building automation kit			
Lot 10: photovoltaic kit			
Lot 11: discrete electronic components			
Lot 12: learning resources			

X.5 Signatures

The members of the Evaluation Committee declare that they are not in a position of conflict of interest and will conduct the evaluation at their best knowledge and experience.

Evaluation Committee	***Name***	***Signature***
Chairman		
Secretary		
Evaluator (1)		
Evaluator (2)		

Observers	***Organisation***	***Name***	***Signature***
Observer 1			
Observer 2			
Observer 3			

XI ANNEX - TENDER OPENING REPORT

Contract title: Supply of electrical laboratory equipment, services and digital learning resources for the ITEC in Fayoum in the frame of the Italian Egyptian Debt for development SWAP program.

Annexes: List of Tenderers' representatives

Summary of tenders received

1. Timetable

	Date	***Time***	***Venue***
Publication of procurement notice			
Deadline for submission of tenders			
Tender opening session			

2. Observers

Name	***Representing***

3. Minutes

The tender opening session was based on the register of tenders received, which was prepared using the information on the envelopes. Each tender envelope had been given a sequential number by the Contracting Authority upon receipt.

The Chairperson and Secretary completed the attached Summary of tenders received during the tender opening session. Only tenders contained in envelopes received by the deadline for submission of tenders were opened.

The following Tenderers withdrew their tenders:

Tender envelope number	***Tenderer's name***	***Reason (if known)***

The tender envelope number was marked on all copies of the tenders. The Chairperson and the Secretary write their initials in the front page of each original.

4. Conclusion

The following tenders were considered to be suitable for further evaluation:

Tender envelope number	***Tenderer's name***

5. Signatures

	Name	***Signature***
Chairman		
Secretary		
Evaluator (1)		
Evaluator (2)		

Annex to the tender opening report: LIST OF TENDERERS' REPRESENTATIVES

Name	***Representing***	***Declaration (if any)***	***Signature***

Date	

Annex to tender opening report: SUMMARY OF TENDERS

Tender envelope number	*Tenderer's name*	*When received*	*Number of packages inside*	*Within deadline (Y/N)*	*Tender package(s) duly sealed (Y/N)*	*Overall decision (Accept/Reject)*
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						

XI.1 ANNEX - ADMINISTRATIVE COMPLIANCE ASSESSMENT GRID

Contract Title	Supply of electrical laboratory equipment, services and digital learning resources for the ITEC in Fayoum	***Tender envelope number:***		***Tenderer's name:***	
Reference	***Document description / type***		***Enclosed Y/N***	***Compliant Y/N***	***Notes/comments***
3.6 a)	I: tenderer identification				
	II: contact person for this tender				
	III: economic and financial capacity				
	IV: staff resources				
	V: experience (list of main references)				
	VI: list of lots submitted				
	VII: tenderer's declaration				
3.6 b)	I: Tenderer's place of establishment				
	II: Representative office or place of establishment in Egypt				
	III: Authorisation to perform activities related to the supply				
3.6 c)	Tender guarantee (Annex V)				
3.6 d)	Authorized signature certificate				
3.6 e)	Bank account				
3.6 f)	Credible conduct of the Tenderer				
3.6 g)	UNI EN ISO 9001/2000				
3.6 h)	On-going legal proceeding and disputes				
Name	***Authorized signature***	***Date***		***Stamp of the tenderer***	

XI.2 ANNEX - TECHNICAL COMPLIANCE ASSESSMENT GRID

Contract Title	Supply of electrical laboratory equipment, services and digital learning resources for the ITEC in Fayoum	***Tender envelope number***		***Tenderer's name***		***Lot No and title***	
Minimum requirements *		***Yes/No *****	***Notes/Descriptions/Features of the tenderer ******				***Tenderer's Ref. to Annex ********

Name	***Authorized signature***	***Date***	***Stamp of the tenderer***

*** the Tenderer should include here the list of the minimum requirements indicated in the Technical Specifications Annex E**

**** the Tenderer should indicate for each requirement if he complies (Yes) or not (No)**

***** the Tenderer should provide some key information in case of non compliance to the requirement**

****** the Tenderer should indicate the annex where characteristics, data and information of the supply are described**

XI.3 ANNEX – ORIGIN AND COMPLIANCE TO 768/2008/EC EVALUATION GRID

Contract Title	Supply of electrical laboratory equipment, services and digital learning resources for the ITEC in Fayoum	***Tender envelope number***		***Tenderer's name***		***Lot No and title***	
List of components / materials *		***Origin ** E / N / O***	***768/2008 yes/no ******	***Notes/Descriptions/Features of the tenderer ******		***Tenderer's Ref. to Annex *******	

Name	***Authorized signature***	***Date***	***Stamp of the tenderer***

*** the Tenderer should include here the list of items indicated in the Technical Specifications Annex E**

**** the Tenderer should indicate E for Egypt or European origin, N for USA, Canada, Japan, Korea, Taiwan origin and O for other countries**

***** the Tenderer should indicate here if the item is (yes) or not (no) in compliance with the Directive 768/2008/EC**

****** the Tenderer should indicate the annex where origin is certified and compliance to the Directive 768/2008/EC is documented**

XI.4 ANNEX – PRACTICAL EXERCISES EVALUATION GRID

Contract Title	Supply of electrical laboratory equipment, services and digital learning resources for the ITEC in Fayoum	***Tender envelope number***		***Tenderer's name***		***Lot No and title***	
Practical exercises *		***Yes/No *****	***Notes/Descriptions/Features of the tenderer ******				***Tenderer's Ref. to Annex *******

Name	***Authorized signature***	***Date***	***Stamp of the tenderer***

*** the Tenderer should include here the list of the practical exercises indicated in the Technical Specifications Annex E**

**** the Tenderer should indicate for each practical exercise if he complies (Yes) or not (No) – minimum 50% of the exercise per each kit**

***** the Tenderer should provide some key information in case of an alternative is proposed**

****** the Tenderer should indicate the annex where characteristics, data and information of the exercises are described**

XI.5 ANNEX – DIGITAL LEARNING RESOURCES EVALUATION GRID

Contract Title	Supply of electrical laboratory equipment, services and digital learning resources for the ITEC in Fayoum	***Tender envelope number***		***Tenderer's name***		***Lot No and title***	
List of Digital resources requested *		***Language ** I / E / A***	***Content ******	***Notes/Descriptions/Features of the tenderer***		***Tenderer's Ref. to Annex ******	

Name	***Authorized signature***	***Date***	***Stamp of the tenderer***

*** the Tenderer should include here the list of items for digital learning resources indicated in the Technical Specifications Annex E**

**** the Tenderer should indicate I for Italian E for English and A for Arabic**

***** the Tenderer should not fill this field**

****** the Tenderer should indicate the annex where digital learning resources is documented**